MAR 3 1924

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

Entered as Second-Class Matter June 30, 1879, at the New York Post Office, Under Act of Congress, March 3, 1879.

FIFTY-SECOND YEAR

Published every Thursday by the Lockwood Trade Journal Co., Inc., 10 East 39th St., New York, N. Y.

Vol. LXXVIII. No. 9 NEW YORK AND CHICAGO, FEBRUARY 28, 1924 { Per Annum, $4.00 Single Copy, 10 Cents

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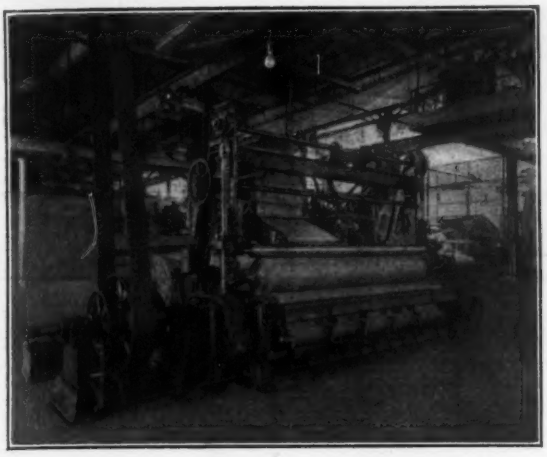

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ESTABLISHED 1872
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FIFTY-SECOND YEAR
Published Every Thursday by the
LOCKWOOD TRADE JOURNAL CO. Inc.
LESLIE R PALMER, PRESIDENT — GEO. S MACDONALD, VICE-PRESIDENT & TREAS. — F. K. HOPPIE, SECRETARY
10 EAST 39TH ST. N.Y. U. S. A.
CHICAGO, 431 S. Dearborn St. BOSTON, 127 Federal St.

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PAPER TRADE JOURNAL

Vol. LXXVIII. No. 9 NEW YORK AND CHICAGO Thursday, February 28, 1924

EDDY PAPER CORP. ASSETS BASIS OF LITIGATION

Over a Million Dollars Worth of Stock at Stake in Suit Now Being Tried in Michigan Court—Case Is Outgrowth of Deal by Which Eddy Paper Co. of Michigan, Disposed of Its Assets to the Eddy Paper Corp. of Illinois—Action Largely Based on Section 9050 of the Compiled Laws of the State of Michigan—Case Being Closely Followed by 750 Holders of Common and Preferred Stock.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., February 25, 1924.—A suit involving the disposition and division of over a million dollars' worth of stock of the Eddy Paper Corporation of Illinois opened this morning before Judge Clayton Johnson, in the circuit court of St. Joseph county, Centerville.

It is the case of John C. Maxwell vs. the Eddy Paper Company and is the outgrowth of the gigantic deal, whereby the Eddy Paper Company, a Michigan corporation, decided in 1922 to dispose of its assets to the Eddy Paper Corporation of Illinois. This action was voted at an adjourned annual meeting of the stockholders, the provision being that the entire common and preferred stock holdings of the Michigan corporation, consisting of 700,000 shares of common stock and 177,500 shares of preferred stock be exchanged for 31,250 shares of no par value stock in the Illinois corporation. In addition the Illinois corporation were to assume the entire bonded indebtedness of the Eddy Paper Company ($2,250,000 in all) and other outstanding liabilities.

This action raised a storm of protest on the part of an active minority of preferred stockholders. They contended that the Eddy Paper Company was at that time "insolvent and liquidated its property and ceased to do business." A majority of this element residing in and near Paw Paw, placed their claims in the hands of Thomas J. Cavanaugh, attorney, demanding first rights in the division of assets.

The original contentions and the suit now pending are based largely on section 9050 of the Compiled Laws of the State of Michigan for 1915, which was in effect at the time of the organization of the corporation, and at the time of the issuance and purchase of the preferred stock by holders of the same in the Eddy Paper Company. The particular clause referred to is:

"If for any reason said corporation shall cease business or become insolvent then after the payment of all liabilities and debts the remainder of the assets of said corporation shall be applied first in payment in full of all preferred stock and then unpaid dividends due thereon, and the balance divided pro rata, share and share alike among the holders of the common stock."

In the early disputes that arose between committees representing the interests of the preferred and common stockholders, no definite settlement was reached, though it is reported that the common stockholders offered as a compromise the plan where each share of preferred stock was to receive twice the amount of stock in the Illinois corporation allotted to the common stock per share.

As result Thomas J. Cavanaugh and David Anderson, attorneys of Paw Paw, in behalf of John C. Maxwell filed suit in the St. Joseph County circuit court. Claude S. Carney of this city becomes a party in the case, representing William H. Thompson and other preferred stockholders who are not nominally parties to the case, "but whose interests are identical in this suit with the interests of the plaintiff."

Mr. Carney's brief is very short and explicit. After pointing out the action taken to wind up the affairs of the Eddy Paper Company of Michigan, as outlined above, he says:

"The purpose of this suit and the chief end sought to be accomplished by this bill of complaint, is to compel the Eddy Paper Company and its officers to distribute the remaining assets of the corporation as required by the laws of the State of Michigan, that is to apply the assets now on hand first in payment in full of all preferred stock and unpaid dividends due thereon.

"The certificates of preferred stock are designated on their face as certificates of preferred stock and contain language expressly creating a preference as to dividends, and containing no language in express terms describing other preferences which in fact were created by law by the statute in effect at the time these certificates of preferred stock were purchased and issued."

Making special reference to Section 9050 of the Compiled Laws of the State of Michigan for 1915, Mr. Carney continues: "We believe the law is well settled in this state that the law of the state and particularly the statute law in force at the time a contract is entered into applicable to such contracts is impliedly a part of the contract of which all parties interested are bound to take notice upon the principle that all persons are bound to know the law. A corporation is a creature of the law and can exist only in accordance with the law under which it is organized, and it is presumed to have acted lawfully and not to have acted unlawfully."

Harry C. Howard, of this city, will appear for the Eddy Paper Company.

This case promises to be one of the most closely followed civil suits tried in western Michigan in recent years. There are approximately 750 holders of common stock and preferred stock in the Eddy Paper Company, a vast majority of them living within a radius of 50 miles of Kalamazoo.

In the meantime the plants of the Eddy Paper Corporation at Three Rivers and White Pigeon have operated steadily during the past 16 months and in common with other mills in the Kalamazoo valley are gradually overcoming the losses sustained in 1921 and early 1922.

Joseph Ryberg to Go With Hummel-Ross Co.

MOSINEE, Wis., February 23, 1924.—Joseph Ryberg, superintendent of the Wausau Sulphite Fibre Company, has resigned to accept the general superintendency of the Hummel-Ross Company of Hopewell, Va. He is to leave Mosinee on March 1. George Voight is to assume the superintendency of the Wausau mill.

EMBARGO QUESTION ARGUED BEFORE MONTREAL HEARINGS

Many Appear to Express Their Views to Royal Commission, Some Favoring Proposed Embargo and Others Opposing It—Shawinigan Water and Power Co. Has Annual Meeting—Brother of the Late Lord Northcliffe to Visit Canada—Annual Report of Saguenay Co. Shows Loss—Assets of Bay Sulphite Co. Are Offered for Sale—Preferred Shares of Brown Corporation Offered.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., February 26, 1924.—The Royal Commission on Pulpwood held meetings during last week and heard arguments both for and against the proposed embargo on pulpwood. A number of lumber merchants appeared and gave evidence in favor of an embargo. Elwood Wilson, Forestry Engineer for the Laurentide Paper Company, speaking as a forestry engineer and not as a representative of the Company, stated that in 1913 the quantity of timber available in the province reached 363,603,200 cords. In the course of the last ten years 14,000,000 cords had burned, 72,000,000 destroyed by budworms and 16,500,000 cut, making a total of 102,504,608 destroyed. This left available 261,098,592 cords. The yearly cut averaged 10,460,000 cords, and, assuming that there was no increase in the demand, the forests would be gone in 26 years from now. Mr. Wilson then gave interesting figures regarding the compensation for the loss through growth, and thought that the embargo would be a good thing.

Edward Beck, secretary of the Canadian Paper and Pulpwood Association, said that he had sent out a questionnaire to the paper manufacturers of Canada. The manufacturers all stated that they had bought as much wood as possible from private dealers. They said that as a general rule they paid the ordinary export price for the commodity, and in some cases rather more. The Laurentide Company said that although they owned extensive limits, 25 per cent of their annual consumption was obtained from settlers, and Price Brothers, Limited, stated that they had bought a good deal of wood from settlers, but that they had recently changed their policy, and for the future they would buy all that was offered to them, as long as the price was not prohibitive. He ridiculed the idea that the United States would be able to obtain wood from the Scandinavian countries in the event of an embargo being imposed. He said that he spent a good deal of time in Scandinavia in 1921, and he had found the merchants anxious regarding the quantity of wood available for their own manufactures.

Omer Lucien, president of the Quebec Forestry Engineers' Association, quoted statistics to show that the timber standing in the province could not possibly last more than 20 years at the present rate of consumption. He thought the only cure would be an embargo and adequate protection against forest fires.

Several farmers appeared and gave evidence against the embargo, their view being put by J. Asselin, who stated he did not think an embargo on pulpwood would be any relief. There would be no good prices unless there was competition created between Canadian and United States purchasers of pulpwood.

Shawinigan's Annual Meeting

At the annual meeting of the Shawinigan Water and Power Company held in Montreal, the report that was presented indicated that for the past year there had been more progress than had been recorded in any previous year in the company's history. Gross operating revenue amounted to $5,110,539 or nearly $500,000 more than the previous year and $900,000 more than two years ago. After allowing $150,000 more for depreciation than was customary, there remained available for the dividends of $1,400,000 the sum of $1,631,560 leaving a balance of $231,000 and showing earnings of 8.15 per cent compared with 7.89 per cent the previous year. This company supplies a large amount of the power consumed by pulpwood and paper mills in the Three Rivers district. It was reported that the St. Maurice Power Company, a new subsidiary of the Shawinigan, which is developing the water powers at LaGabelle, on the St. Maurice River, is so far ahead the schedule that it would have 30,000 hp. available during April and an additional block of 90,000 hp. before the end of the present year. In this connection the company provided a very much appreciated diversion for the shareholders at the annual meeting in presenting to them a series of moving pictures showing the development that have taken place in connection with the construction of the power plant. With this development, the total power resources of the company were summarized as equivalent to 497,500 hp.

Offer Assets of Bay Sulphite

At a meeting of bondholders of Bay Sulphite Company it was decided to offer the assets for sale and tenders are being called for the 21st of March, for the various properties. These include the sulphite pulp mill at Port Alfred and the Chandler mill which was taken over from the Saguenay Pulp & Power Company, as well as the timber limits. The action is taken quite as much to establish the position of the bondholders as with any strong expectation that the call for tenders will prove successful. In any case, if the amount offered does not cover the obligation to the bondholders, the latter will be empowered to take over the property. At the present time the Chandler mill is closed down, but the original Bay Sulphite Company mill at Port Alfred is operating to capacity and finding a market for its sulphite pulp output, chiefly in the United States.

Lord Rothermere to Visit Canada

Lord Rothermere, brother of the late Lord Northcliffe, will during his proposed visit to Canada and the United States, make investigations into the pulp and paper industries, with a view to assuring further supplies for his British interests, whose consumption of newsprint is enormous. Rothermere expects to sail about the end of February. He will spend some time in New York and will probably come from that city to Montreal. It is possible that his Canadian trip will be extended to Toronto and Winnipeg. It is announced that Lord Rothermere's plans at present do not include a visit to the big Northcliffe pulp and paper plant at Grand Falls, Newfoundland.

Saguenay Company's Statement

The profit and loss account and balance sheet of the Saguenay Pulp and Power Company and its subsidiaries for the year ended December 31, 1922, has just been issued. In explanation of the long delay in the publication of these statements, President Beique says: "The delay was brought about mainly by interference on the part of Sir Frederick Becker with the books and affairs of the company, and on his insisting that the entries for the year 1922 be divided into two periods; January 31 to June 30 and July 1 to December 31, this for the purpose of determining the cost price of the pulp sold under Ludgate Syndicate contracts."

The profit and loss account for 1922 shows that gross operating income and sales amounted to $6,646,750, as compared with $5,882,137 in the previous year. From this were deducted selling expenses, cost of sales and general expenses, leaving gross income at $1,477,390 as against $2,433,073; the decrease was due to the increase in cost of sales from $2,643,915 to $4,614,038. After deducting interest charges, and making provision for reserves and bad debts, a debit balance of $419,881 was carried to surplus, as compared with a credit balance of $64,981 in the previous year.

In his report to the shareholders, President F. L. Beique, makes remarks to the following effect: "The company has suffered from the low price of pulp during the first six months of the year 1922 and still more from its connection with Sir Frederick Becker and his firms. Becker & Company, Limited, have defaulted first, on

not taking delivery of any part of 5,000 tons of sulphite pulp, which they had bought from the company at $140 per ton; second, in also not taking delivery or paying for a considerable quantity of mechanical pulp purchased at $62.50 per short ton; third, in not delivering Ludgate Syndicate contracts for a minimum quantity, of 80,000 gross tons of mechanical pulp—they delivered contracts only for 35,000 to 36,000 tons acceptable to the company. At the opening of the last season of navigation, the board of directors realized that Becker & Company, Limited, had overspread themselves and that all shipments of pulp should be paid on delivery. Unfortunately, through gross abuse of the exercise of power given Sir Frederick Becker on the occasion of the Ludgate Syndicate contracts, of appointing a committee of management, and otherwise, the decisions of the board were not carried out and the Saguenay Pulp stands to lose heavily with these firms."

Brown Corporation Preferred Offered

Offering of $2,000,000 of 7 per cent cumulative preferred shares ($100 par value) of Brown Corporation is being made in Montreal by a syndicate composed of Newman, Sweezey & Company, Limited, and Dominion Securities Corporation, Limited. The corporation is one of the largest producers of sulphate pulp in Canada. The Brown Company is the largest manufacturer in the United States of bleached sulphite fiber pulp and kraft writing paper, timber and allied production. It owns the entire capital stock of the Brown Corporation. This latter corporation has sulphate pulp mill of 220 tons per day at La Tuque, Que. They also own a developed hydro-electric power in 4,400 hp. and an undeveloped site of 140,000 hp. as well as extensive timber, limits and holdings. The corporation has outstanding $1,400,000 first mortgage 6 per cent bonds, $9,000,000 of common shares, and the current issue of $2,000,000 of preferred shares. The preferred stock is being offered at a price of 98½ and accrued dividend, payable in United States funds.

Canada's Pulp and Paper Exports

The exports of pulp and paper from Canada in January were valued at $10,900,050. This was a decline of $774,138 from the total for December, but was greater than the total for January, 1923 by $601,807. The exports of pulpwood in January amounted to 79,405 cords valued at $765,089 compared with 53,416 cords valued at $614,925 exported in December, 1923. The quantity of pulpwood exported in the twelve months ending January, 1924, was 1,330,406 cords valued at $13,094,207 compared with 1,078,566 cords valued at $10,858,705 in the preceding twelve months.

Paper Mills in Turners Falls

In the January issue of *New England Business* which is called its foreign trade issue, the contents are largely devoted to a review of the industrial life of Greenfield and Turners Falls, Mass. Relative to Turners Falls it says, "Everything produced in Turners Falls is the best of its kind. No shoddy or second rate goods are turned out."

In describing the Keith Paper Company it speaks of John Keith, its founder, as a wise and highly skilled paper maker of the old school, a manufacturer who made paper on honor, using brains, pure water, skilled help and the best possible equipment in process. In mentioning the Esleeck Manufacturing Company it refers to A. W. Esleeck who established the business in 1900, as one who practices the "Golden Rule" in his relations with his employees as well as his customers, the results being noteworthy and enviable. Employees in the Esleeck mill are so well treated they seldom resign and hate to die.

Reference is also made to the Montague Mill of the International Paper Company and its founding in 1870 by George Marshall. Also to the new plant of the Montague Machine Company, builders of paper and pulp mill machinery.

Committees for Superintendents' Meeting

The general committee of the American Pulp and Paper Mill Superintendents' Association reports that the arrangements for the coming convention, which will be held at the Miami Hotel in Dayton, Ohio, May 22, 23 and 24, 1924, are all practically completed.

There will be some worth while doings all the time. Superintendents are warned to be prepared for three of the largest and busiest days of their lives.

The program will be replete with information and knowledge of the art of pulp and paper making, and the papers on subjects of vital importance to the superintendents will be written and given by the ablest men, in and out of the industry.

There will be entertainment and dinners in the evenings as usual. Special provisions have been made for the entertainment of the ladies.

Hotel accommodations have been reserved in the leading hotels of the city, and members who expect to attend are requested to send for their reservations early, to the chairman of the general committee.

The committees who are working for the success of the convention are as follows:

General Committee—H. W. Server, chairman, The Miami Paper Company, West Carrollton, Ohio; F. R. Henry, John J. Maloney, B. T. McBain, Homer D. Martindale, Thomas E. Keough, Tom Harvey, Michael Ludwig, Jr., Henry F. Obermanns.

Arrangements—Dr. F. R. Henry, chairman, The A. A. Simonds-Dayton Company, Dayton, Ohio; H. G. Funsett, Al. G. Rolfe, Adam Ritz, William Battles, Benjamin Bishop, Homer H. Latimer, John A. Tully, R. F. Englehart.

Reception—John J. Maloney, chairman, Franklin Coated Paper Company, Franklin, Ohio; Dan Daverin, Canadian Division; B. T. Larabee, Northeast Division; F. L. Barstow, Connecticut Valley Division; Michael J. Argy, Northern New York Division; Charles Aull, Miami Valley Division; J. F. Yordy, Miami Valley Division; E. H. Gilman, Michigan Division; Charles E. Raney, Western Board Division; John Hercher, Northwestern Division.

Resolutions—B. T. McBain, chairman, Nekoosa-Edwards Paper Company, Port Edwards, Wis.; S. F. Henry, Canadian Division; B. T. Larabee, Northeastern Division; John J. White, Connecticut Valley Division; H. Stafford, Northern New York Division; L. T. Murphy, Miami Valley Division; E. H. Gilman, Michigan Division; C. E. Nicely, Western Board Division; L. E. Smith, Northwestern Division.

Registration—Homer D. Martindale, chairman, The Shartle Brothers Machine Company, Middletown, Ohio; E. D. Burgess, Canadian Division; B. M. Betrie, Northeastern Division; Thomas F. Rogan, Connecticut Valley Division; Fred J. Rooney, Northern New York Division; John J. Maloney, Miami Valley Division; George Pountain, Michigan Division; Claude Nicely, Western Board Division; Joseph H. Slater, Northwestern Division.

Transportation—Thomas E. Keough, chairman, The Peerless Paper Company, Dayton, Ohio; W. T. Schenk, John Calder, Martin V. Brooks, Joseph M. Cathcart, W. W. Winship, J. Howard Stansell, John F. Yordy, G. S. Martindale, Fred Belden, C. H. Noble, Fred Lueders.

Visitation—Tom Harvey, chairman, The Gardner-Harvey Paper Company, Middletown, Ohio; A. O. Rolfe, Michael Ludwig, Frank Smith, C. E. Goodenough, Oscar N. Jones, L. T. Murphy, Jack Smith, Michael Redmond.

Press Committee—L. D. Post and John M. Cornell, *The Paper Mill and Pulp News;* A. A. Tanyane, THE PAPER TRADE JOURNAL; Larry Collins, *The Dayton Journal;* Frank Hunt, *The Dayton Evening News;* Ednor M. Rossiter, *The Dayton Daily Herald.*

PHILADELPHIA TRADE SEES GREATER ACTIVITY COMING

Evidences of a Slight Revival in Coarse Paper Business Detected —Somewhat Better Conditions Rule the Paper Stock Market—Interest Grows in Graphic Arts Night Plans—Coarse Paper Division Has Important Meeting This Week —M. O. Raiguel Co. to Move into New Home Next Month—Atlantic Paper Co. Again a Chartered Body—E. J. Basler Re-enters Business—Trade Brevities.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., February 26, 1924.—Though much of the week's business in the coarse paper branch was of the time-marking character, there were evidences of a slight revival of the greater activity which set in at the year's beginning but which since the advent of February gradually has been disappearing. Buying is cautious and of small amount but prices remain steady, to firm all along the line. Two elements of more or less importance are entering into the situation,—the dumping of foreign made goods onto the market at prices much below the domestic and the liquidation efforts of Receiver Charles A. Marshall of the Durham Paper Company. Treasurer W. L. Cochran of that organization made trade rounds offering No. 1 Kraft at from one cent to one cent and a half below current prices. There is however, not a very large amount of this stock available and the disturbance caused by the offer is regarded as of but a transient character.

Stock Conditions Improve

Conditions in the paper stock market are a little better than they were for the lower grades of paper, but mill buying of the better quality is still hesitant. Quotations on mixed and commons advanced but very slightly not so much because of greater buying by the mills as because of a diminished supply. With bad weather, collections of this grade have been impeded and, moreover, under a recent mandate of the Department of Public Works, gathering of waste paper by street collectors has been prohibited. All this waste paper now is being collected under municipal authority, finding its way to the new public incinerating plant. The manager of one of the largest paper packing plants in the city says that, as a result of this order, there has been a falling off in waste paper gathering in the northwestern section of the city alone of almost 25 tons per day, and that under these conditions higher prices, he believes, is inevitable.

Working for Graphic Arts Night

All the fine paper houses are as one in their advocacy of the publicity plan for the second Graphic Arts Night to be held at the Manufacturers' Club on Thursday night of this week, and to secure a large attendance. The plans were almost the sole topic of discussion at the meeting of the Fine Paper Division of the Philadelphia Paper Trade Association at the Bourse on Thursday noon of last week with Leon Beck presiding. The Committee has taken three definite steps to carry out its promise of giving widest publicity to printers, engravers, lithographers and other converters of paper and to their patrons as well. The first of these took the form of a letter to all paper house executives setting forth that Graphic Arts Night offered greater opportunity for the establishment of co-operating friendships between the paper men and their customers than anything in the history of these industries and therefore that full advantage should be taken of a movement which really marks a tremendous development in the advancement of good will. All the executives were asked to become properly enthusiastic. The second step was to have them forward the names of all their salesmen visiting the printing and allied converting industries, and the third was the issuance of a special letter to these salesmen enlisting their co-operation in carrying the message of Graphic Arts Night to all in their rounds.

Coarse Paper Trade Elevation

Another association activity receives an impetus on Thursday of this week when the Coarse Paper Division of the Philadelphia Paper Trade Association meets. Special efforts are being made to get a large attendance together to greet National Secretary W. C. Ridgway and Statistical Secretary N. A. Schoenbucher. It is generally regarded that there exists something like near demoralization in the coarse paper business and previous efforts to correct it have not been highly successful. One such effort was expressed through the attempt of The Paper and Twine Service Bureau to get the trade together but it ended in complete failure. Messrs. Ridgway and Schoenbucher are expected to advise the coarse paper trade on the error of its ways and to point out the pathway to salvation.

Raiguel Co.'s New Home

M. O. Raiguel Company, for many years located at 305 Florist street, engaged in the paper stock business, has just purchased its own business home at 150 N. Front street and will move in early March. M. O. Raiguel, head of the company, has secured the new home because of notice to vacate the present location which will be taken in under condemnation proceedings by the City of Philadelphia as part of the site which will be used in the construction of the Philadelphia-Camden bridge. The new home is a four story structure with basement and has over 12,000 square feet of storage space. Mr. Raiguel long has been identified with the paper industry of Philadelphia, having been associated with the well known paper house of Wilkinson Brothers and was also associated with his uncle, Frank Buckley, who was head of Buckley & Co. and was one of the founders of the original company, now known as the Penn Paper and Stock Company which has for many years been under the ownership of William J. McGarity.

Atlantic Paper Company Again Incorporates

The Atlantic Paper Company now located at 919 Walnut street has just been incorporated under the laws of Pennsylvania, and there was elected to the executive body of the firm the following: President, Thomas J. Hare; vice-presidents, Frank J. Barthmaier and R. Peel Bently; treasurer, Thomas M. Simpson; secretary, George W. Hasson. All are well known in the Philadelphia paper industry. Two years ago the Atlantic Paper Company became a firm following its incorporation which was concurrent with its organization in 1919 by the withdrawal of Messrs Hare, Simpson and Hasson from the Ward Company. The firm now returns to the original status of a chartered body. It specializes in large contracts.

E. J. Basler Re-enters Business

E. J. Basler, son of John Basler who for many years conducted a paper business at 1832 E. Moyamensing avenue, is now engaged in the paper jobbing business at 1038 S. 56th street, where he distributes a line of coarse papers, bags and specialties. Mr. Basler, whose father died several years ago and who was associated with him in the coarse paper business, left the company to join the Colors during the war and his return to the business will again bring him in touch with the industry.

The Ajax Manufacturing Company, 141 N. 3rd street has taken larger quarters at 119 and 121 N. 4th street, where it occupies the third floor and now has doubled the space of its former headquarters. A. Zitserman, proprietor of the firm since its establishment four and a half years ago, is planning to expand the business in which he is engaged as dealer of cardboard specialties adapted for advertising novelties and other lines.

New Home of Paper Manufacturers Co.

The new home of the Paper Manufacturers' Company, Inc., is now completed and has been occupied by the company since January 12. This building is designed to embody the last word

in construction for the storage of paper, paper converting and executive offices. All its six floors containing approximately 120,000 square feet of space will be utilized exclusively by the Paper Manufacturers' Company. It occupies the site at the southwest corner of Fifth and Willow streets running along Fifth street southward 126 feet towards Callowhill street, and then back on Willow street 183 feet to Randolph street and thus will have four street fronts, Fifth, Callowhill, Willow and Randolph. Fifth street has become one of the main arteries of north and south travel east of Broad street. Callowhill street is next to Market street, the widest in the heart of the city and on Willow street are the tracks of the P. & R. Railway, connecting with the Belt Line operated jointly by the P. & R. and Pennsylvania Railroads and all others and thus giving to the new building exceptional shipping facilities. A siding runs directly from Willow street into the new warehouse accommodating three freight cars with abundant room to spare. On the Callowhill street front there will be a modern garage for the accommodation of the firm's fleet of trucks. In the center of the building, banked, are two five ton elevators and throughout the building there will be installed the Shepherd lift and traveling hoists similar to those used in the Curtis Publishing Company. These facilities will enable the company to load and unload simultaneously three freight cars under cover, and through the elevators and traveling hoists, to have virtually a duplicate system for carrying stock to the upper floors and for delivering it with facility to any part of the structure. Since the floors are built to sustain a load of 250 pounds per square foot, the capacity of the new building really is immense. Structurally it is principally of concrete with tapestry brick trimmings, abundantly illumined by windows, save where blank walls particularly have been provided for the best storage of paper. The executive offices are on the Fifth street side at Willow; the remainder of the first floor will be used for shipping and delivery; the second and third floors will be given over to the manufacturing department for the production of small roll products, such as adding machine, cash register, die wiping, ticker tape, telautograph, cable recording tape, clock roll, mailing papers, blasting papers, cartridge papers, toilets and all manner of small roll specialties. In the new structure a full line of fine printing papers will be added to the wrapping paper stocks always previously carried by the company.

The business of the organization was begun in 1905 when articles of incorporation were secured on part of the first floor of 523 Ludlow street. After a year, larger quarters were necessitated and these were found at Fifth and Commerce streets, and successive expansions took place leading up ten years ago to the purchase of the property now occupied, 526-28 Cherry street, whose total floor area on eight stories and a basement is only equal to the two floors of the new structure.

Officials of the company are: F. A. O'Neill, president; J. A. O'Neill, vice-president; N. M. Glynn, treasurer, and F. W. Coar, secretary.

News Notes of Interest

Simon Walter of S. Walter, Inc., is sojourning during a two weeks' winter vacation in Havana, Cuba, having left last Saturday for the island. He is expected to return about March 5. Valentine Wilson of the company is in Atlantic City enjoying a midwinter rest. A surprise party greeted Thomas F. Kennedy, vice president of the firm upon the occasion of the 17th anniversary of his wedding upon his return from the office on that day. A host of friends gathered at the home in Oak Lane and an evening's entertainment of dinner, dance and other social diversions was enjoyed.

Lisle Q. Owens, well known in paper stock circles and manager of the E. D. Hemmingway Company for many years is now associated with Thomas H. O'Connor & Co., paper stock dealers, 410 Gilford avenue, Baltimore, where he has been engaged in the position of general manager of the firm.

A. Hartung & Co., 506-512 Race street, has taken on the Foldwell Enamels handled by the Chicago Paper Company of Chicago, and is now stocked with the entire line of this nationally advertised printing stock.

President and treasurer, Norman A. Considine of the Paper House of Pennsylvania during the week was elected a vice president of the Poor Richard Club, succeeding Lee Hood. He is chairman of the committee having in charge a tour of Poor Richardites to London in July to attend the convention of the Associated Advertising Clubs of the World.

Old Hickory Paper Co. to Add Machines

[FROM OUR REGULAR CORRESPONDENT]

OLD HICKORY, Tenn., February 25, 1924.—Plans have been perfected for the building of a two machine kraft paper mill here. The pulp mill is already completed and has a capacity of 150 tons per day. The paper mill will be equipped with two large, high speed 184-inch Beloit Fourdrinier machines, each capable of producing 75 tons of kraft paper per day.

The pulp mill was built by the old Nashville Pulp and Paper Company which has been reorganized and refinanced and provided with adequate capital. The new company will be known as Old Hickory Paper Company, Old Hickory, Tenn. John I. Beggs of Milwaukee, president, and R. J. Cullen, vice-president and manager. Mr. Beggs is prominently identified with large banking institutions and also with large public utility interests, while Mr. Cullen is well known throughout the trade as a very capable and successful paper mill executive, having many years' experience in building and operating kraft paper mills. One of his most recent achievements is the construction and starting up of the now famous Bastrop, Louisiana, mill of the Bastrop Pulp and Paper Company.

Contracts have already been awarded to the Beloit Iron Works for these large, high speed, paper making machines, embodying all the latest improvements, such as the Beloit Removable Fourdrinier, the Beloit Rope Drive and many other important features. Orders have also been placed for beaters, Jordons and power equipment. Contract has been awarded for the steel for the paper mill building, a construction force has already been organized and started work clearing off the site and preparing for the rapid construction of the new paper mill. The first unit is expected to be ready for production in the fall of 1924.

It is understood that this new mill will be ideally located with respect to the kraft markets and will enjoy an abundant supply of suitable pulpwood and good water.

The officers of this new mill have determined to make this the finest kraft mill in the South and it will be equipped with all the latest labor saving devices which will contribute to a low cost of paper. The building will be of reinforced concrete and brick and nothing will be spared to produce a thoroughly high class modern kraft paper mill.

Paper Box Man Heads Associated Oregon Industries

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., February 21, 1924.—George G. Guild, president of the Columbia Paper Box Company, who was re-elected president of the Associated Industries of Oregon last week, enters upon the fourth year of his service as leader of the organized group of Oregon manufacturers. He was a director of the organization for a year before his first term as president.

Mr. Guild has become well known among the industries because of his staunch advocacy of the cause of home manufacturers.

"The pioneer industries," he declared, "are among a community's best assets. They are producers in every sense of the word—producers of goods, producers of additional taxable wealth, producers of employment and business opportunities, producers of traffic for the transportation lines and their payroll money feeds the retail business world."

DEMAND FOR PAPER KEEPING CHICAGO PLANTS OCCUPIED

Orders Coming in Enable Mills to Run at Near Capacity—H. Van Petten Pronounces Writing Paper Condition Most Satisfactory—Leo. J. Donovan Joins Great Lakes Paper Company's Sales Force—Kalamazoo Parchment Office Takes Additional Space—J. A. Rule, Inventor of Newspaper Vending Machine, Dies—Douglas Wray Spending Annual Vacation in Florida—Paper Trade Activities.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., February 25, 1924.—Steadiness characterizes the local paper market at present and has prevailed during the past week. A sustained demand has been enjoyed in practically all lines. Orders coming in are said to be keeping the mills employed almost to capacity. In some branches of the industry manufacturers are running their plants at normal. No price changes are reported on coated, uncoated or bonds of all grades. A constant firming up is noted throughout the entire market.

Writing Paper Mills Run to Capacity

The situation in the writing paper division of the paper market is summed up by H. Van Petten, of W. E. Wroe & Co., large distributors of high grade bonds, in these words:

"In the writing paper market conditions have been very satisfactory. In the last thirty days writing paper mills have been reporting receipts of orders to keep them running to capacity production. It has been a replenishment of stock proposition on the part of dealer and consumer, although, I think, most paper has been reaching the ultimate consuming channels very promptly. I don't think anybody is placing large stock committments or for future needs. Prices are holding very firm on rag content paper and prospects are that they will continue to hold firm as costs have been increasing during the past sixty days, particularly the cost of rags. The market is holding firm on sulphite paper but there has been some fluctuation of cheap sulphite in the last thirty days, but regular grades are pretty well stabilized."

Demand for waste papers has eased off a little with a softer market. Some of the lines more usually taken are holding up pretty well. There is an adequate supply to meet the call, however, although inclement weather has hampered collections to a certain extent. Inquiries and orders were more numerous for wax papers and vegetable parchment but the demand is not so heavy now as it was earlier in the season. It is stated the February figures will show a much heavier sale of all grades of paper than any month for the past five or six.

Great Lakes Takes on Donovan

Leo J. Donovan is back in the middle west again in the rôle of salesman for the Great Lakes Paper Company, 515 S. Wells street, merchants of book papers. He has been connected with this organization only a short time. Previously he was with the Pacific Paper Company, of San Francisco, Calif., but before he went out there he was with the Seaman Paper Company, of Chicago, for several years, also a salesman.

The Great Lakes Paper Company has just added a new line of folding enamel seconds. There is a demand in the Chicago territory for such stock and the company made this connection to take care of it. Improvements in the present location of the firm were contemplated by both J. O. Lee, president-treasurer, and P. J. Hazelwood, secretary, up until recently when it was decided that larger quarters were necessary. Consequently, they will move when a suitable place is secured. At present, some public warehouse space is utilized, due to the expanding business.

Kalamazoo Parchment Office Grows

Constant growth in the Chicago office of the Kalamazoo Vegetable Parchment Company, in the Railway Exchange Building, has made it necessary to take additional space. Nearly as much new space was taken as was previously occupied. Offices now extend along one entire side of the inside court on the sixth floor. The new space is for salesmen and a sample room. In the sample room, which is a new feature, are various sized cabinets of paper stocks and a young lady is engaged constantly in sending out samples in answer to requests. Additional new cabinets will also be installed within the next few weeks.

R. R. Hosking is now with the Chicago office of the Kalamazoo Vegetable Parchment Company, as a wax paper salesman. He will cover the Chicago territory, making many of the calls previously handled by A. H. Mertens. Mr. Mertens, who has been with the Kalamazoo company for some time, will devote his entire time to fine paper, selling only the wholesale merchants of Chicago. Previously, Mr. Hosking was connected with the Central Wax Paper Company of Chicago. He has traveled extensively in the paper industry, having been in the business for the past five years.

Douglas Wray Goes to Florida

Douglas Wray, president of the Douglas Wray Paper Company, Chicago, has just left for his annual vacation in Florida. He left on Thursday, February 14, and will be gone one month. He will stay in St. Petersburg during the time. Mrs. Wray accompanied him. Frank J. Walsh, secretary of the Douglas Wray Paper Company, is at the helm in the absence of the chief executive.

Father of Colter Rule Dies Suddenly

J. A. Rule, father of Colter Rule, one of the best-known paper salesmen in Chicago, associated with the Dwight Bros. Paper Company, here, died suddenly February 11 at the home of Colter Rule in Aurora, a small town just outside of Chicago. He was visiting the family of his son when he became sick with pneumonia. The body was taken to Cincinnati, Ohio, to the home of his daughter, where he made his home. Burial took place there.

J. A. Rule was the inventor of a newspaper vending machine which sells newspapers and makes change for the patrons. He was active in Democratic politics about twenty-five years ago.

Activities of the Chicago Paper Trade

E. R. Jones, secretary of the Kansas City Paper House, Kansas City, Mo., came through the Windy City last week on his way to visit several of the paper mills in the Miami Valley.

George S. Johnson, of the Western Paper Company, Omaha, Nebr., is on a western trip and will be gone for about two weeks.

James T. Edwards, of the Bradner-Smith Paper Company, Chicago, has returned from his trip to the Pacific Coast. He was gone about one month. It was a vacation for Mr. Edwards after completing his work in supervising the construction of the company's new building at Van Buren and Desplaines streets.

W. E. Wroe, president of W. E. Wroe & Co., Chicago, came back from his European trip a few weeks ago and is now in Texas.

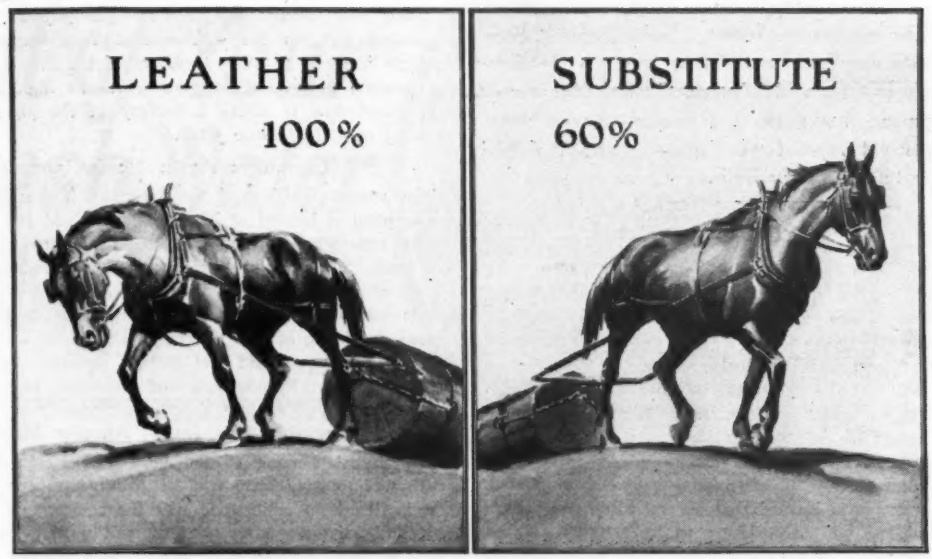
Another visitor to the plants in the Miami Valley recently was E. D. Buchanan, of the Moser Paper Company, this city.

Clarke Marion, chemist of the Champion Coated Paper Company, has been in New York on a several days' business trip.

Patrick J. Behan Falls to Death

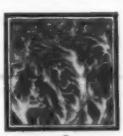
[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., February 26, 1924.—Patrick J. Behan, manager of the Hotel Nonotuck, the Holyoke hotel most favored by paper mill men and traveling salesmen for paper and paper products fell from the third floor of the hotel last Tuesday forenoon in a fit of temporary insanity brought about by nervous breakdown and was killed.

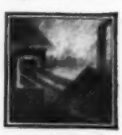


Actual tests, made at the Mellon Institute and at Cornell University, have proved that when width, thickness and tension are the same, a leather belt will pull a 40% and up larger load than a substitute.

To make a substitute belt transmit the same amount of power as a leather belt, the tension must be increased till it is *one and four-fifths times greater than that necessary with a leather belt.* This means increased load on machinery, pulleys—increased friction and consequent loss of power.



Leather's fibres! Thousands upon thousands of these tiny fibres give, flex and bend naturally and without internal friction. They give leather its wonderful strength. A leather belt will last from two to six times as long as a substitute.



Leather belts, water-proofed, can be run even under water with most satisfactory results.

Leather belts can be made endless and repaired right on the pulley. This is not true of substitute belts.

Leather grips the pulley. A leather belt with only 1½% slip will transmit 40% more power than a similar substitute belt with the same slip. At 2½% slip a leather belt will produce three times the horsepower of a substitute belt.

Manufacturers are invited to write us regarding their belting problems. Interesting and informative booklet on belting and transmission will be sent you free upon request. There is no obligation. Mail us the coupon on the right.

Address—Research Division

THE LEATHER BELTING EXCHANGE, Forrest Building, Philadelphia

The Leather Belting Exchange is not a company operating for a profit or for selling belts. It is an organization maintained by the leading leather belting manufacturers to promote research work on power transmission and to furnish impartial information on belting.

Nothing takes the place of Leather

THE LEATHER BELTING EXCHANGE
Forrest Building, Philadelphia

Please send me your 6 booklets on power transmission—FREE. Also, without obligation, place me on your mailing list for subsequent information developed by your research work on belting.

Name.....

Name of firm.....

Address.....

City.....

Position held.....

TORONTO RUMORS PREDICT A MERGER OF PAPER MILLS

It is Admitted That Negotiations are in Progress Concerning Provincial Paper Mills and Howard Smith Paper Mills—Lincoln Mills Readjusting its Affairs Through Receivership Procedure—James MacArthur, General Manager of British American Wax Paper Co., Retires—Several Paper Companies Hold Annual Meetings—Legislative Application Made to Build New Railway Line.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, February 25, 1924.—During the past few days there has been a rumor to the effect that the Provincial Paper Mills, Limited, of Toronto, and the Howard Smith Paper Mills, Montreal, which organizations are the largest makers of book, writing and bond papers in the Dominion, would consolidate. The Provincial Paper Mills have plants at Mille Roches, Thorold, Port Arthur and Georgetown and the Howard Smith Paper Mills, at Beauharnois, Crabtree Mills, Que., and Cornwall, Ont. While tentative negotiations are spoken of they are far from completion. Officers of the Provincial Paper Mills admit that some preliminaries have been talked over but further than that matters have not progressed. From outside sources, it is learned that several alternatives have been proposed and the one most likely to be accepted, if the transaction is consummated, is the virtual sale of the two properties to a new company in which English, United States and Canadian money would be interested. It is said that the Provincial Paper Mills are willing to dispose of their interests if the price is acceptable.

The directors of the Provincial Paper Mills are I. H. Weldon and S. F. Duncan, Toronto, T. A. Weldon, Thorold, Ont.; Alex Fasken, Toronto; Sir Charles Gordon, Montreal; S. B. Munroe, A. B. Connable, C. A. Peck and C. S. Campbell, Kalamazoo, Mich.

C. Howard Smith, Montreal, is president and general manager of the Howard Smith Paper Mills; J. W. Pyke and J. A. Cameron, vice-presidents; Harold Crabtree, assistant general manager and secretary, and T. P. Howard, comptroller. The combined capital and outstanding bonds of the two companies aggregate about $14,500,000.

The Provincial Company turns out each day at its various plants about ninety-five tons of book, bond, writing and ledger papers, fifteen tons of coated book and box board, fifty tons of bleached sulphite and fifteen tons of ground wood pulp. The company has about thirteen hundred square miles of timber limits. The Howard Smith Paper Mills produces daily at its various units about sixty-five tons of writing, book and bond papers, fifteen tons of blotting, five tons of cover papers, thirty tons of ground wood and sixty tons of sulphite pulp. The company owns large limits in Gaspe, Que., where a large rossing plant is operated.

Readjustment of Lincoln Mills Securities

Lincoln Mills, Limited, Merritton, Ont., have, on the strength of a petition, placed their affairs in the hands of a receiver, R. Home Smith, of Toronto, who is now also acting manager of the concern. This step has been taken in order to readjust the securities of the company and the trade have been notified that operations will be carried on as usual and there will be no interruption to the output or service of the organization. The company owns two plants at Merritton, known as the Lybster and the Lincoln mills. The former turns out about twenty-five tons daily of book, bond, writing, waxing, envelope and litho papers and the latter rope, manila, wrapping, jute, flour sack, car lining, etc., to the extent of ten tons daily. Edward P. Farley is chairman of the board, K. S. Maclachlan, mill manager, and George C. Winlow, Toronto, sales manager. The Lincoln Mills also produce about fifty tons daily of strong bleached and unbleached sulphite. American and Canadian capitalists are interested in the plant which was founded several years ago by the late W. D. Woodruff of St. Catharines.

Mr. MacArthur Retires as Manager

James MacArthur, who for the past fifteen years has been associated with the British American Wax Paper Company, has sold his interests to other members of the firm and retired from the position of general manager which he filled for some years. Mr. MacArthur is taking a holiday at the present time before deciding upon his future plans.

Carruthers Again Heads Interlake

The annual meeting of the Interlake Tissue Mills Company, whose plant is located at Merritton, was held last week at which a very satisfactory report was presented on the operations of the past year. The company manufactures from twenty to thirty tons a day of white and colored tissues, sulphite, fruit wrap, crepe, towels and other lines. George Carruthers, who is the newly elected president of the Canadian Pulp and Paper Association, was re-elected president and general manager of the company; I. H. Weldon, vice-president and treasurer, and S. F. Duncan, secretary.

Provincial May Install Another Machine

The annual meeting of the Provincial Paper Mills Company, which was to have been held last week, has been postponed until March 19. It is understood that the company is considering the matter of installing a second book and writing paper machine at the Port Arthur division but no definite decision is likely to be arrived at until the annual meeting.

Mr. Ramsay Is New President

The annual meeting of Ritchie and Ramsay, Limited, coated paper manufacturers, Toronto, was held recently when a report of the past year's operations was presented showing that a fair business had been done. The company has been incorporated twenty years and for several years previous the business was conducted under a partnership arrangement. C. N. Ramsay was elected as the new president; George W. Pauline, vice-president and managing director and John M. Finlay, secretary-treasurer. J. D. Montgomery and A. V. Ritchie, Toronto, were elected members of the board of directors.

Manufacturing Stationers Getting Busy

A satisfactory report was presented at the annual meeting of W. J. Gage & Co. Sorting business in the manufacturing stationery line at the present time is reported rather quiet but the orders for fall trade delivery are improving and the outlook is considered very good. All the old officers were re-elected as follows: President, H. H. Love; vice-president, H. F. E. Kent; secretary-treasurer, A. G. Parker.

Mr. Kent Again Heads Kinleith

The Kinleith Paper Mills, Limited, whose head office is at St. Catharines, held their annual meeting a few days ago. The plant, which turns out about twenty tons daily of book and writing paper, is operating at about eighty per cent capacity at the present time. H. F. E. Kent, of Toronto, was re-elected president and general manager; H. H. Love, vice president; George H. Jefferson, secretary and A. G. Parker, treasurer.

Notes and Jottings of Industry

Major Joseph Kilgour, of Toronto, president of the Canada Paper Company, Windsor Mills, Que., who has been spending a holiday at Hampton Springs, Florida, has returned home.

Tenders are being called for the purchase of the stock in trade, presses, printing department equipment, calender finishing room equipment, etc., of the S. L. Davison and Hughes Engraving and Lithographing Company, Limited, who recently made an assignment, a number of paper houses being creditors.

Keeps Dirt Out of Your Fresh Water Supply

THE Bird Water Filter keeps leaves, grass, sawdust, bark, fish and other forms of "dirt" from your fresh water supply. It can be installed independently or ahead of the sand filters. The price is low and the cost of operation is negligible.

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6225

BIRD WATER FILTER

Obituary

John K. Spencer

RENSSELAER, N. Y., February 23, 1924.—John K. Spencer, former General Superintendent of F. C. Huyck and Sons' felt mills and Vice-president of the Rensselaer County Bank, died at his home, 9 Broadway, last Tuesday night after a week's illness of pneumonia.

He came to this country from England thirty years ago to associate with the Huyck firm. At the time of his retirement several years ago, he was recognized as one of the leading felt makers in this country and abroad.

On retiring as General Superintendent of F. C. Huyck and Sons, he was succeeded by his son-in-law, Harold Smith, who is now General Superintendent of H. Waterbury and Sons, felt mills at Oriskany, N. Y. Mr. Smith was in turn succeeded by Mr. Spencer's other son-in-law, John C. Standish who is now General Superintendent of the Albany Felt Company of Albany, N. Y. Mr. Spencer came from an English extule family. In addition to Mrs. Harold Smith and Mrs. John C. Standish, the deceased is survived by his widow and another daughter, Miss May Spencer of this place.

Appleton Mill Activities

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., February 26, 1924.—Low water in the Wisconsin river has forced curtailment of operations at the Biron and Wisconsin Rapids division plants of the Consolidated Water Power and Paper Company. The Biron mill was shut down for two days and it is feared that a general reduction in production will be necessary until the water level is raised. Usually the company prepares sufficient groundwood in the fall to keep the mills operating at capacity during the low water season in winter but last fall the highwater did not come at a time it was needed and the customary surplus was not created.

The recently installed steam turbines at the mills of the Nekoosa-Edwards Paper Company at Port Edwards and Nekoosa enabled the company to operate at capacity in spite of the greatly reduced waterpower. That company has not been affected by the low water stage.

Mills in the Fox river valley are operating at capacity, although the water has been drawn to a low level. Mill owners are hopeful of obtaining permission to draw water from Lake Winnebago to a still lower level so that it will provide a larger reservoir during the period of highwater in the spring when floods inundate thousands of acres along the lake and its tributary streams, resulting in litigation and argument which at last has been carried to congress.

Congress has been asked to provide $25,000 for surveying a canal between the Wolf river and Green Bay to divert floodwaters from the former stream. It is an ambitious project probably costing several hundred thousand dollars but it will make several thousand acres of excellent land available for cultivation.

Mill owners in the Fox river valley are cooperating thoroughly with the riparians to prevent the annual floods. They have done everything within their power to keep the level of lake Winnebago, a natural reservoir, at the lowest legal level and are sympathizing with the land owners in their difficulties.

Experiments with a new process which would eliminate the objectionable odors attendant upon the manufacture of kraft papers are to be undertaken by the Nekoosa-Edwards Paper Company following a conference with B. S. Summers, Port Huron, Mich., inventor of the process. The experiments are being made on a small scale and if they are successful there is a possibility of general adoption of the process.

Charles A. Goodman, Marinette, was elected president of the Peshtigo Paper Company, Pestigo, Wis., at the annual meeting of the company. He succeeds John Sutherland, Dayton, Ohio, who was president of the company since its organization. D. C. Everest, Rothschild, Wis., was elected vice-president. Other officers were reelected.

A. C. Witherbee, general superintendent of the Peshtigo company since last summer, has resigned his position. No announcement has been made of his future plans. Max D. Boehm of Rothschild, has been appointed superintendent of the sulphite mill to succeed W. E. Swan who recently resigned.

George W. Mead, president of the Consolidated Water Power and Paper Company, Wisconsin Rapids, has been appointed state chairman of a campaign to raise $200,000 in Wisconsin for the Chicago Theological seminary.

Austrian Paper Industry Inactive

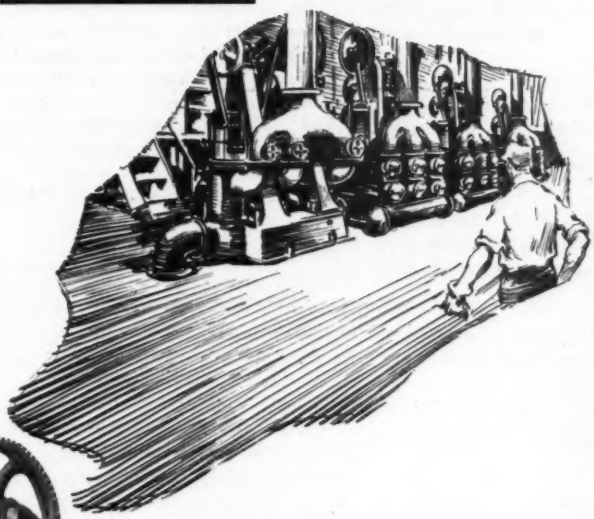
WASHINGTON, D. C., February 11, 1924.—Since the autumn of 1922 the Austrian paper industry has been in a precarious position, and it becomes more evident daily that it is faced by a loss of its markets in the neighboring countries, according to reports received by the Department of Commerce. Exports to Czechoslovakia, which in spite of the developed paper industry in that country, used to purchase many special kinds of paper in Austria, have grown exceedingly difficult owing to defensive measures on the part of the Czechoslovak industry. Yugoslavia has established its own paper industry on a special basis of protectionism, and regular business with Hungary, formerly one of the most important paper markets for Austria, has become more and more intermittent by reason of difficulties connected with transactions in foreign exchange. The same difficulties and protectionist duties hamper Austria in other eastern states, and the drop of the Polish mark has undermined business in that quarter. The economic catastrophe in Germany has also closed the German market and furthermore flooded the Austrian, as well as other markets, with cheap German products.

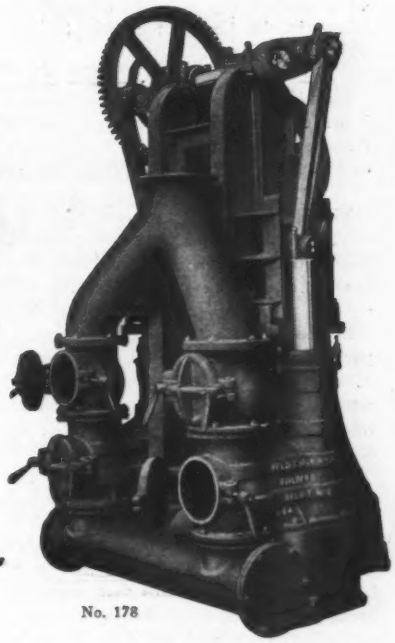
The prospects of the Austrian paper industry are therefore far from satisfactory, and it seems evident that a slack market must be counted upon for some time to come. Recent trade treaties with Italy and France have revived trade with those countries, but it is not of sufficient volume to offset the losses in other neighboring countries. In order to find a market for its surplus production the Austrian paper industry has been obliged to turn to overseas markets.

That the Austrian paper manufacturers are seriously turning to overseas markets is indicated by the fact that in order to meet the demands of their new customers, considerable changes have been made in a number of the mills in so far as lack of capital permitted such adaptations. Production during 1923, based on the first six months output, is estimated at 150,000 tons of paper, or about 70 per cent of pre-war capacity, and at 43,000 tons of cardboard, or 60 per cent of pre-war capacity. In accordance with the trend in the world markets much lighter printing paper is being produced than before, and high-grade paper, which formerly was of minor importance, has now become one of the chief items in paper manufacture. Another change of notable importance is the increase in the production of wood pulp as compared with paper and cardboard. While the latter are considerably under pre-war production, the output of chemical wood pulp in 1923 is estimated at 120,000 tons, or 97 per cent of the pre-war figure, while the output of mechanical groundwood is estimated at 85,000 tons, or slightly above peace capacity.

The stabilization of the Austrian crown has not prevented rises in the cost of living and wages, which in turn has directly and indirectly affected production costs, and these have been further increased by the turnover and export taxes, as well as a general increase in taxation rates. The paper industry has been striving to overcome these handicaps by increasing output, but prices ruling the world paper markets are said to allow only a scant profit. During the first half of 1923, 68 per cent of the cardboard and 57 per cent of the paper produced in Austria had to be sold abroad, and considerable losses were suffered as a result of the low prices ruling at that time.

The Efficiency Pump for Paper Mills





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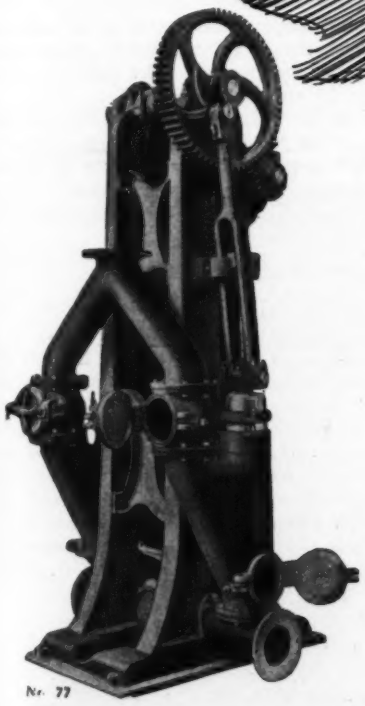


No. 77

BELOIT pumps are called "heavy duty" pumps because they are sturdy and strong. They are built for continuous 24-hour service and are gluttons for hard, steady work. They are regarded as the present-day *efficiency* pump for paper mills.

On our triplex pumps you will find forged steel crank shafts instead of cast steel. Our locomotive type connecting rod (regular equipment on our heavy-duty pumps) takes up the wear on crank and wrist pins while pump is in operation. The self-aligning feature prevents undue strain on cranks or frames.

If ever a part does become broken or worn out after years of hard usage, their construction is so handy that the repair can be effected easily and quickly, without the necessity of buying a considerable portion of a new pump.

Thousands of experienced board makers the world over know that Beloit pumps "deliver the goods."

It will pay you to turn first to BELOIT.

Beloit Iron Works **Beloit, Wis., U. S. A.**

Established 1858

New York Trade Jottings

George Gair, of Robert Gair Company, has returned to his offices in this city after an absence of a few days from town last week.

* * *

The Eastman Paper Company, Inc., 17 Vandewater street, will change its name on March 1 to the Vandewater Paper Company. The officers and directors of the corporation will remain unchanged.

* * *

R. S. Kellogg, secretary of the News Print Service Bureau, is on a business trip to Washington this week. He will return to his offices in the Canadian Pacific Building on Madison avenue on Friday morning.

* * *

Hornblower & Weeks are accepting subscriptions for $2,000,000 7 per cent cumulative preferred stock of the Brown Corporation. After deducting all debts, the company's net assets are equivalent to $583 per share for this preferred stock.

* * *

The Paper Utilities Company, Inc., of New York, manufacturers of Tulip paper drinking cups and the Tulip line of souffle cups, baking dishes and ice cream liners, has opened branch offices in Boston, Philadelphia and Chicago.

* * *

In the article announcing the advance in the price of bleaching powder and liquid chlorine for the Mathieson Alkali Works, Inc., 25 West 43rd street, New York, in the PAPER TRADE JOURNAL last week it was erroneously stated that the price in cylinders for one ton and less was $6.00 per 100 lbs., whereas the lowest price is $6.50 per 100 lbs.

* * *

The West Virginia Pulp and Paper Company, in addition to carrying stocks in its own warehouses in New York and Chicago, Bradner Smith & Co. of Chicago and Beekman Paper and Card Company of New York, will also warehouse the Westvaco mill brand papers. This means that, beginning March 1, Westvaco mill brand papers will be stocked by the two above mentioned concerns as co-distributors with the West Virginia Pulp and Paper Company in both Chicago and New York; and each month, beginning March 1, the mill price list will be mailed by the mill and the two new distributors.

* * *

The enthusiasm for the Salesmen's Association of the Paper Industry developed at the New York Mid-Winter conference of the Association with the executives will result in similar meetings being held in three other sections of the country before the annual convention in April. John E. A. Hussey of Boston at once planned for a get-together at Boston within a week. W. E. Perry, vice-president for the New England district announced plans for a meeting in the Springfield district, while Robert T. Houk, Jr., vice-president for the Miami Valley began plans for a general conference in the Ohio region.

General Strike Reported in Norway

Fragmentary reports reaching this city on Tuesday indicated that all manufacturing operations have been shut down in Norway since last Thursday. This is said to be due to a union strike in sympathy with the dock men, who have been out for some time. All pulp and paper mills are reported to be included in the shutdown.

There is no means of judging just how long the strike is going to last, but it is believed that it will be of short duration since the government is expected to intervene. As nearly as could be ascertained the difficulty has no connection with the British dock workers strike.

The production of the Norwegian mills is, roughly, 430 tons a day of bleached sulphite, 370 tons of unbleached sulphite, forty-three tons of sulphate and 900 tons of groundwood.

The cutting off of this is likely to influence the local markets, which have been feeling Scandinavian competition pretty strongly for the past few months.

Champion Fibre Co. Strike Settled

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., February 27, 1924.—The Bureau of Conciliation, Department of Labor has just received a report from Charles Bendheim, conciliator stating that the strike at the plant of the Champion Fibre Company, Canton, N. C., has been settled.

The report states that the workers took a decrease in wages but the three shift has been restored. This is an eight hour shift as against the two shift which the company was going to put into effect of from eleven to thirteen hours.

As stated in last weeks issue of PAPER TRADE JOURNAL a strike was called at the plant sometime ago because the managers notified the mill hands that wages would have to be reduced and the working hours lengthened because of the present industrial situation. It is understood that following the agreement the plant has reopened.

Tennessee Paper Mills Get New Power Plant

CHATTANOOGA, Tenn., February 20, 1924.—Approximately $75,000 is being spent by the Tennessee Paper Mills in the installation of a new steam power plant, according to announcement Saturday by John Stagmaier, president of the company.

Mr. Stagmaier stated the new plant is being put in to bring greater economy as well as insure uninterrupted operation. Two new boiler units are being put in and as soon as the work of installing them is completed the two old boiler units are to be repaired and made ready for emergency use.

The plant is forced to use a large amount of steam in the production of its material for cartons, boxes and shipping cases. About 500 horsepower of steam is now used and a saving can be realized by the company increasing this steam capacity enough to generate the necessary electric current to operate the mills. A total of about 1,500 horsepower is required.

Kennebec Log Driving Co. Elects Officers

[FROM OUR REGULAR CORRESPONDENT.]

AUGUSTA, Me., February 25, 1924.—The Kennebec Log Driving Company and the Moose River Log Driving Company, in which are represented the Great Northern Paper Company of Bangor, the Hollingsworth & Whitney Company of Winslow, the Augusta Lumber Company, the S. D. Warren Company of Portland and the Pine Tree Pulp Company of South Gardiner has just elected the following officers: President, W. J. Lannigan, Waterville; treasurer and clerk, S. W. Philbrick, Skowhegan; auditor, A. K. Butler, Skowhegan; directors, F. A. Gilbert, Bangor; Blaine S. Viles, Augusta; Smith S. Randall, Augusta; Forrest H. Colby, Bingham.

Archer Paper Co. Increases Stock

CHATTANOOGA, Tenn., February 25, 1924.—The Archer Paper Company, 1124-26 Market street, due to the large increase in volume of business, applied for an amendment to its charter of incorporation at the office of W. A. Whitice, county court clerk. The capitalization of the company will be increased from $100,000 to $150,000. The incorporators are John Stagmaier, V. D. Weatherford, R. B. Krepps, John W. Marshall, Paul R. Stagmaier, Cecil H. Williams, Sam T. Davis, L. M. Hall, B. W. Friedell and H. P. Fay.

Famous Products Series No. 13

Valley Iron Works Co. Builds Equipment *for making* Upson Board.

The Upson Company, manufacturers of Upson Wall Board, are known to the trade as "Fiber Board Authorities," and their products are of fine quality. If this were not true, they would not hold the position in the trade that they do. One reason for their products being of so high a grade, is the care with which all of the materials used in their making, and the finished products are tested. Among other pieces of equipment made by the Valley Iron Works Company and used in making Upson Products, is the Valley Size Tester, which performs an important function in the Upson Laboratory.

UPSON
PROCESSED
BOARD
THE UPSON COMPANY
LOCKPORT
N.Y.
TRADE MARK REGISTERED

The nearest perfect wall and ceiling material.

Valley Size Tester

1. Makes it possible to accurately measure the sizing used.
2. Makes it possible to keep size more constant during a run and from run to run.
3. Makes possible a real saving in the amount of size and alum used.

Write today for pamphlet giving full particulars regarding the Valley Size Tester.

VALLEY IRON WORKS CO.

Plant: APPLETON, WISCONSIN

New York Office: 350 MADISON AVE.

See our display in Booth 87, at the Paper Industries Exposition, April 7-12th

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending December 31, 1923, and for the Twelve Months Ended December 31, 1923, as Compared with Corresponding Months of Previous Year

IMPORTS—PAPER.

Paper and Manufactures of	December 1922 Quantity	December 1922 Value	December 1923 Quantity	December 1923 Value	Twelve Months Ended December 31 1922 Quantity	Twelve Months Ended December 31 1922 Value	Twelve Months Ended December 31 1923 Quantity	Twelve Months Ended December 31 1923 Value
Paper, except printed matter (total)	.....	$8,140,609	.....	$10,525,116	.....	$85,854,357	.....	$116,137,795
Printing paper—								
Standard news print.....lbs..Free	196,988,821	6,970,937	231,006,469	8,784,740	2,058,535,612	72,313,567	2,617,685,620	98,021,045
All other, n. e. s. .....lbs..Dut.	1,219,357	62,505	1,354,484	61,163	5,198,123	320,302	16,793,825	831,282
Grease proof and waterproof papers.lbs..Dut.	132,605	6,970,160	444,086	38,225	[1]604,726	[1]50,126	3,207,941	296,474
Wrapping paper .....lbs..Dut.	7,472,370	344,742	6,344,908	270,161	65,831,073	2,733,640	88,011,848	3,906,120
Writing, drawing, bond, etc.....lbs..Dut.	277,526	69,811	258,743	42,070	[1]705,478	[1]175,980	3,452,032	650,623
Surface coated .....lbs..Dut.	67,532	23,548	115,852	22,620	924,645	231,645	1,156,743	309,050
Tissue papers .....lbs..Dut.	154,445	69,709	235,042	81,788	[1]471,950	[1]180,452	2,036,153	916,832
Paper boards—								
Pulp boards in rolls .....lbs..Dut.	4,785,356	112,670	6,258,254	173,067	61,258,878	1,543,746	78,775,396	2,239,225
Other paper boards, n. e. s....lbs..Dut.	1,753,477	54,118	2,128,233	58,437	[2]6,102,501	[2]171,020	24,801,404	722,393
Cigarette paper, cigarette books and covers .....lbs..Dut.	328,220	138,494	1,900,831	$16,208	.....	.....	4,053,530	12,193,052	3,211,080
Photographic papers .....lbs..Dut.	325,547	62,350	212,115	212,115	2,710,233	520,513	2,224,698	479,212
Hanging paper .....lbs..Dut.	881,632	50,670	1,699,123	80,244	.....	589,013	10,558,835	558,831
Decalcomania, not printed.....lbs..Free	9,872	2,366	61,718	15,467	.....	94,637	387,879	100,857
All other .....lbs..Dut.	.....	166,521	.....	335,580	.....	2,876,186	.....	3,894,771

CRUDE PAPER STOCK.

Rags for paper stock.....lbs..Free	27,573,565	454,576	37,283,427	673,740	301,898,340	4,705,422	397,711,699	7,153,469
Waste bagging, waste paper, etc..lbs..Free	16,764,879	192,396	8,098,553	95,509	[2]47,836,006	[2]552,605	129,016,578	1,749,550
Old rope and other paper stock..lbs..Free	9,490,293	429,279	8,705,001	479,334	153,475,387	4,127,118	104,138,277	4,857,037

WOOD PULP.

Mechanically ground .....tons..Free	27,185	952,956	31,633	1,036,860	192,688	5,706,529	267,527	9,280,863
Chemical wood pulp—								
Sulphite, unbleached .....tons..Free	68,898	3,844,750	42,597	2,501,458	422,700	22,297,283	461,813	26,546,112
Sulphite, bleached .....tons..Free	23,495	1,880,242	18,695	1,624,637	213,093	17,996,401	250,580	22,245,865
Total sulphite .....tons	92,393	5,724,992	61,292	4,126,095	635,793	40,293,684	712,393	48,791,977
Imported from—								
Finland .....tons	4,803	266,241	4,519	282,277	33,035	1,743,506	70,665	4,139,051
Norway .....tons	7,388	486,635	3,893	343,305	68,287	4,911,952	68,071	5,509,563
Sweden .....tons	54,506	3,187,286	14,778	1,002,157	237,558	13,320,756	201,023	12,693,582
Canada .....tons	23,367	1,642,228	27,707	1,931,097	269,037	18,726,526	299,183	21,595,155
Other countries .....tons	2,329	142,602	10,395	567,259	27,876	1,590,944	73,451	4,854,626
Soda pulp .....tons..Free	450	25,336	563	37,841	[2]647	[2]37,390	5,483	342,752
Sulphate pulp, unbleached.....tons..Free	40,389	2,338,500	25,176	1,554,425	275,504	16,085,121	233,503	15,204,012
Imported from—								
Finland .....tons	75	3,773	.....	.....	18,891	914,394	14,683	866,357
Norway .....tons	475	26,084	644	42,607	7,643	393,741	8,986	531,262
Sweden .....tons	28,709	1,571,777	12,910	759,204	110,338	5,770,306	76,552	4,651,427
Canada .....tons	10,925	723,706	11,127	732,512	136,907	8,902,366	131,168	9,022,496
Other countries .....tons	205	13,160	495	20,102	1,725	104,314	2,114	132,470
Sulphate pulp, bleached.....tons..Free	5,027	258,511	50	4,630	19,440	1,169,570	15,422	1,080,961
Other pulp .....tons..Free	49	1,061	90	4,267	[2]608	[2]15,079	875	51,363

CHEMICALS AND OTHER PAPER MAKERS' MATERIALS.

Color lakes .....lbs..Dut.	223	239	.....	.....	[2]239	[2]262	4,263	3,635
Indigo—								
Natural .....lbs..Dut.	1,012	1,058	619	547	12,450	13,848	10,473	5,216
Synthetic .....lbs..Dut.	.....	.....	.....	.....	72,218	101,448	631	458
Dyes, colors, stains, etc.....lbs..Dut.	.....	.....	88	90	[2]872	[2]1,482	13,809	18,174
Colors or dyes, n. e. s.....lbs..Dut.	.....	.....	.....	.....	[1]2,553,576	[1]3,762,841	.....	.....
Colors, dyes, stains, color acids and color bases, n. e. s.....lbs..Dut.	209,846	322,409	247,067	316,562	[2]738,359	[2]1,006,924	3,252,382	4,424,311
Imported from—								
Germany .....lbs.	77,920	114,784	154,680	178,652	.....	.....	1,580,403	1,945,814
Switzerland .....lbs.	54,547	56,988	37,988	52,430	.....	.....	857,466	1,331,075
United Kingdom .....lbs.	16,834	13,130	12,376	15,328	.....	.....	108,410	111,969
Other countries .....lbs.	60,545	137,507	42,023	70,152	.....	.....	706,103	1,035,453
Casein or lactarene..... {lbs..Free	.....	.....	.....	.....	[1]10,321,399	[2]853,276	.....	.....
{lbs..Dut.	2,053,811	274,231	1,562,743	178,376	[2]4,021,099	[2]514,552	26,489,993	4,409,744
Kaolin, china, and paper clay....tons..Dut.	31,219	312,271	17,885	179,727	276,968	2,966,805	279,166	3,050,099

PULPWOOD.

Rough .....Cord..Free	19,619	185,773	11,205	99,872	225,429	2,260,680	378,692	3,511,462
Peeled .....Cord..Free	66,376	623,733	39,956	377,353	706,596	7,216,074	855,303	8,418,943
Rossed .....Cord..Free	9,754	128,437	6,436	78,114	112,791	1,525,882	117,968	1,516,273

[1] Jan. 1 to Sept. 21, 1922. [2] Beginning Sept. 22, 1922.

(*Continued on page* 38)

Established 1886

Knowledge
Experience
Service

Distinction counts in every business. It divides superiority from mediocrity, and the unusual from the ordinary. But real distinction is not attained in a day. It is the cumulative product of knowledge derived from an experience of many crowded years; and the result of a strict adherence to a standard established with the organization itself—in 1886.

M. GOTTESMAN & COMPANY

—INCORPORATED—

18 East 41st Street
New York, N. Y.
U. S. A.

European Offices:
Stureplan 13,
Stockholm, Sweden

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

(*Continued from page 36*)

EXPORTS—PAPER.

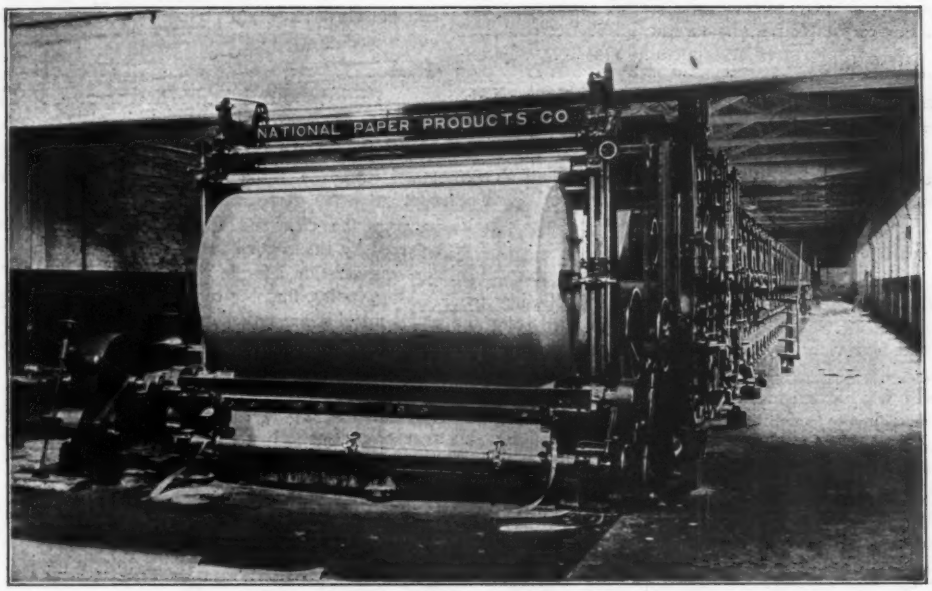
Paper and Manufactures of	December 1922 Quantity	December 1922 Value	December 1923 Quantity	December 1923 Value	Twelve Months Ended December 31 1922 Quantity	Twelve Months Ended December 31 1922 Value	Twelve Months Ended December 31 1923 Quantity	Twelve Months Ended December 31 1923 Value
Paper, except printed matter (total)	.....	$2,256,818	.....	$2,186,207	.....	$24,139,064	.....	$25,677,685
Printing Paper—								
News Print Paper.....lbs.	4,113,241	196,774	3,780,546	176,945	51,528,348	2,337,591	32,714,732	1,636,937
Exported to—								
Canada	245,353	14,893	150,539	9,358	2,271,802	145,582	1,132,422	102,449
Central America	137,757	8,103	51,947	2,733	1,633,054	87,878	1,306,049	69,188
Cuba	2,243,006	97,794	2,756,794	121,242	19,597,450	814,760	20,343,644	925,156
Argentina	.....	.....	.....	.....	12,522,613	496,523	1,320	79
Other South America	594,728	31,390	157,249	8,154	5,137,836	252,819	1,914,547	99,640
China	6,291	669	34,948	2,744	1,563,360	64,316	89,810	7,265
Japan	1,774	216	111,587	7,083	2,651,420	160,596	1,158,266	75,899
Philippine Islands	760,370	36,783	231,081	9,789	4,031,864	186,732	4,417,661	215,978
Other countries	123,962	6,926	286,520	15,842	2,118,949	128,385	2,291,013	141,283
Book paper, not coated.....lbs.	3,025,667	304,763	1,826,479	206,391	29,200,410	2,829,363	26,597,921	3,001,149
Exported to—								
United Kingdom	34,745	8,011	38,962	7,948	570,940	120,488	617,076	136,412
Canada	158,861	22,335	106,447	17,530	2,490,262	282,543	2,223,461	293,144
Central America	100,393	11,250	42,543	6,580	458,780	50,564	869,407	102,303
Mexico	175,464	19,812	92,954	10,206	2,659,716	242,644	2,047,626	232,317
Cuba	1,051,606	102,993	365,495	42,630	6,079,649	579,522	7,007,372	752,729
Argentina	267,492	27,754	70,772	6,587	1,668,047	145,552	1,003,603	136,695
Brazil	28,282	3,029	6,062	1,177	1,447,177	158,000	815,273	92,130
Venezuela	46,341	5,421	176,845	17,845	719,491	78,009	489,705	61,782
Other South America	241,646	22,009	100,461	12,418	1,654,056	163,122	1,616,446	176,121
British India	3,291	514	7,104	1,136	219,594	24,557	223,938	25,641
China	15,127	2,150	404,890	34,593	2,036,892	185,287	2,841,663	286,327
Japan	189,699	15,750	147,437	13,799	3,706,376	279,547	2,089,769	196,082
Philippine Islands	589,515	48,842	131,800	17,459	3,325,393	300,408	3,003,506	281,552
Australia	60,611	7,508	50,711	5,744	939,099	94,076	895,867	114,637
Other countries	62,594	7,385	83,996	10,739	1,224,938	125,044	853,209	113,277
Cover paper.....lbs.	98,188	15,383	126,907	19,227	1,584,983	225,286	1,197,327	210,061
Greaseproof and waterproof paper.....lbs.	80,491	11,086	121,585	21,776	1,096,766	143,467	1,640,980	219,715
Wrapping paper—								
Kraft paper.....lbs.	84,707	7,556	93,940	8,956	814,972	67,661	873,373	79,737
Other wrapping.....lbs.	2,719,562	208,174	2,396,352	201,525	32,237,010	2,098,168	25,873,856	2,096,640
Writing paper, except papeteries.....lbs.	731,896	91,741	615,067	110,508	7,371,463	1,152,964	6,208,162	1,045,911
Surface-coated paper.....lbs.	457,144	61,215	263,159	38,793	3,764,742	564,974	3,973,675	605,634
Tissue and crêpe paper.....lbs.	335,704	84,508	303,974	74,084	2,705,955	706,525	3,375,634	846,808
Toilet paper.....lbs.	401,174	43,876	334,826	38,365	5,036,734	536,712	4,631,838	545,176
Paper towels and napkins.....lbs.	66,448	11,113	70,639	15,767	869,427	147,848	1,201,945	205,692
Bristols and bristol board.....lbs.	144,408	12,773	55,538	8,545	1,467,191	176,949	1,876,018	161,211
Paper board and straw board.....lbs.	4,252,117	210,644	5,530,377	254,335	49,087,237	2,101,357	56,294,479	2,678,145
Sheathing and building paper.....lbs.	644,735	19,937	424,623	23,034	6,162,963	221,374	3,767,627	179,884
Wall board of paper or pulp.....sq. ft.	1,006,745	37,088	2,421,231	80,416	11,416,992	404,791	16,623,665	611,548
Cigarette paper and books.....lbs.	39,143	11,880	130,882	36,599	740,390	280,986	598,649	193,944
Photographic paper.....lbs.	93,502	104,778	94,152	79,827	1,528,091	1,459,259	1,451,311	1,399,159
Paper hangings (wall paper).....yard	1,386,313	30,476	2,443,272	64,709	16,769,851	407,443	22,956,220	579,922
Paper bags.....lbs.	766,557	71,522	641,892	73,916	11,682,896	1,054,866	8,740,561	880,353
Boxes and cartons.....lbs.	915,949	87,945	713,240	77,570	9,365,574	793,190	10,878,735	1,055,721
Carbon paper.....lbs.	53,254	43,081	65,448	54,702	686,104	535,975	877,428	690,660
Envelopes.....lbs.	200,170	39,170	260,968	48,006	2,604,413	502,726	2,812,654	550,344
Playing cards.....packs	769,190	117,582	840,429	69,308	5,259,454	681,735	9,828,008	1,121,986
Cash-register and adding-machine paper.lbs.	78,028	8,884	135,379	14,424	887,608	97,237	1,198,515	130,696
Papeteries (writing paper in boxes).....lbs.	36,633	10,955	36,277	12,763	349,920	124,529	417,656	135,962
Other paper and paper products, n.e.s..lbs.	2,662,961	413,914	2,862,810	375,716	37,308,535	4,486,088	34,216,192	4,794,691
Books, maps, pictures and other printed matter (total).....lbs.	3,924,593	1,613,463	3,793,601	1,438,686	45,266,582	16,929,628	49,544,195	17,874,639
Books and pamphlets.....lbs.	2,060,104	733,601	2,233,460	746,374	21,926,034	7,853,787	26,624,133	8,743,864
Maps and charts.....lbs.	23,481	27,731	10,707	16,079	141,439	183,269	176,476	166,585
Music in books or sheets.....lbs.	35,533	26,519	46,602	28,239	477,719	316,817	590,924	459,348
Souvenir post cards.....lbs.	18,502	13,131	27,041	12,923	944,714	206,590	611,795	220,427
Lithographically printed matter, except postcards and maps.....lbs.	173,718	162,211	167,244	127,576	1,785,977	1,295,588	2,048,798	1,518,320
Other printed matter.....lbs.	1,613,255	650,270	1,308,547	507,495	19,990,699	7,073,577	19,492,069	6,866,095

WOOD PULP AND PAPER STOCK.

Sulphate wood pulp.....tons	1,209	€9,242	1,098	59,719	16,400	809,346	14,675	850,825
Soda wood pulp.....tons	165	12,904	45	4,200	3,180	269,851	2,993	287,291
Other wood pulp.....tons	282	8,159	66	4,032	2,295	107,756	2,928	156,711
Rags and other paper stock.....lbs.	6,994,757	125,540	9,866,017	165,721	75,712,995	1,323,247	111,272,324	1,927,302

PAPER AND PULP MILL MACHINERY.

Paper and pulp mill machinery.....lbs.	981,174	173,831	475,607	111,691	8,362,576	1,826,904	11,479,483	2,006,812



THE LANGSTON WINDER OR REWINDER
ON
BOXBOARD

WINDERS

Robert Gair Co., New London, Conn.
Bicking Paper Mfg. Co., Downingtown, Pa.
Western Board & Paper Co., Kalamazoo, Mich.
American Box Board Co., Grand Rapids, Mich.
Consolidated Paper Co., Monroe, Mich.
U. S. Gypsum Co., Port Clinton, O.
U. S. Gypsum Co., Lancaster, O.
Beaver Board Co., Thorold, Canada
Fairfield Paper Co., Baltimore, O.
National Paper Products Co., Stockton, Cal.
H. F. Watson Co., Erie, Pa.
Terre Haute Paper Co., Terre Haute, Ind.

REWINDERS

Continental Paper Co., Bogota, N. J.
McEwan Bros., Whippany, N. J.
Uncas Paperboard Co., Norwich, Conn
Mid-West Box Company, Chicago, Ill.
Mid-West Box Company, Cleveland, O.
Mid-West Box Company, Anderson, Ind.
Mid-West Box Company, Fairmont, W. Va.
Quaker Oats Co., Akron, O.
Quaker Oats Co., Cedar Rapids, Ia.
Quaker Oats Co., Fort Dodge, Ia.
Quaker Oats Co., Peterborough, Can.
Mengel Co., Louisville, Ky.
Indiana Fibre Prod. Co., Marion, Ind.
Armour Grain Co., Chicago, Ill.
National Oats Company, St. Louis, Mo.

SAMUEL M. LANGSTON COMPANY

CAMDEN CLEAN SHEAR CUT CUT NEW JERSEY, U. S. A.

Agents: Toronto Type Foundry Co., Ltd., Toronto, Ont.
T. W. & C. B. Sheridan Company, London, England

Recent Incorporations

DUNN SULPHITE PAPER COMPANY, Detroit, Michigan. Capital, 10,000 shares of no par value common and $25,000 preferred. Incorporators: C. F. Bowman and R. Lambrecht, all of Detroit.

PRICE BROS. FOREST PROTECTIVE ASSOCIATION, Quebec. Capital, $100,000.

QUEBEC FOREST INDUSTRIES ASSOCIATION, Quebec. Capital, $100,000.

CAPITAL INCREASE

NOBLE & WOOD MACHINE COMPANY, Hoosic Falls, New York. $40,000 to $60,000.

Studying Pollution of Streams

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., February 26, 1924.—Extent of pollution of rivers and streams by waste from papermills, long a mooted point in the Wisconsin and Fox river valleys, will be definitely determined in a survey which has been undertaken by the state sanitary engineer. The survey was started last fall and has not progressed far enough to warrant definite conclusions but some interesting results have been found. It is believed the survey will be completed during the low water stage during the summer.

Samples have been taken from the Wisconsin river at Rhinelander, Tomahawk, Stevens Point and Wisconsin Rapids, all papermill cities, to determine the extent of pollution and also its character. The investigation also will include samples of the waste that is dumped into the streams.

Sportsmen have contended that industrial waste, particularly from papermills, has all but destroyed fish life in the waters on which mills border and agitation has been going on for years for drastic regulations governing dumpage of waste in these streams. Several years ago most of the mills were induced to install savealls which prevent the dumping of a great deal of solid waste but it is contended that much unstrained liquid still goes into the water, polluting it to such an extent that fish cannot survive.

The survey, it is hoped, will determine once and for all, the extent of this damage and perhaps will result in a way of eliminating objectional practices that may be found.

Puget Sound Pulp & Paper Co. May Build

SEATTLE, Wash., February 20, 1924.—In a formal communication to the city council yesterday afternoon, the Puget Sound Pulp and Paper Company, through Caldwell & Evans, its attorneys, filed an application for electrical power and the draft of a proposed contract between the city and the company. The communication was referred by the council to its city utilities and finance committees, for consideration later in the week.

After stating that the company has filed articles of incorporation at Olympia, the communication declares:

"This company has been formed as a preliminary step to ascertaining if the city will sell the company power necessary for the operation of a wood pulp and paper mill, to be located and operated by the company in Seattle. The plant will cost approximately $6,000,000, and if it is established here will carry a payroll of 700 men, besides the indirect employment of a large amount of other labor.

"In view of this it becomes necessary for the company to know before undertaking any expenditure if the city will undertake to sell it current at the price named and subject to the conditions set forth in the inclosed contract.

"If the city will execute this agreement, we have the assurance of our clients that the company will proceed with diligence in locating and constructing its factory, and will, when the same is ready for operation, as outlined in the contract, purchase and pay for the power as provided in the said proposed agreement."

The Biggs Boiler Works Co. Akron Ohio

Globe and Cylinder Rotary Bleaching Boilers
Digesters
Riveted Steel Tanks
Flumes, Smokestacks, Penstocks, General Steel Plate Construction of every description

Why Biggs Rotaries Are Long Lived

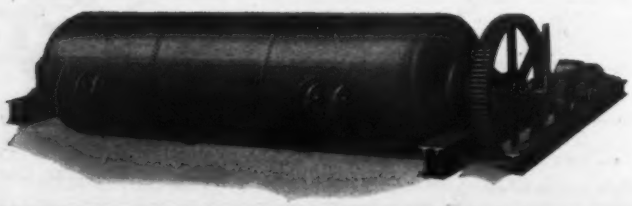
WHEN a Rotary Cooking or Bleaching Boiler gives continuous service for 30 years or more as Biggs Rotaries are doing, there's a reason.

Precision and thoroughness in every detail of laying out and construction—only these can account for such performance.

Take the riveting operation for instance,—hydraulic riveters up to 150 tons pressure squeeze the red hot rivets quickly into place before they can even begin to cool. Every rivet completely fills the rivet hole through the entire thickness of the plate, instead of merely heading over the rivet and depending upon the caulking to make a tight job.

This is only one of the perfected methods used in the Biggs plant but it is typical of the thoroughness with which every operation is performed.

Paper men the country over will testify to the fact that Biggs Rotaries do last and keep on lasting.



Write for the Biggs Rotary Book. It contains facts every paper man should know.

The Biggs Boiler Works Co., Akron, 20, Ohio

TUSCAN
TISSUE
Patented in United States.
Canadian patent applied for
TUSCAN Folded Toilet TISSUE is a wonderful new invention which will revolutionize the use of toilet paper in the home.
ECONOMICAL CONVENIENT
SANITARY ORNAMENTAL
Packed in Sanitary Cartons
White Enameled Steel Fixture

ATTENTION JOBBERS!

This Is An Exceptional Opportunity

For many years there has been a latent demand for a fixture for folded toilet paper which is adaptable for use in the home. The TUSCAN TISSUE Carton and Fixture eliminate the undesirable features of other fixtures—no locks, springs, etc., to get out of order.

Drop the carton in fixture—pull starting sheet—paper is ready to use. Fixtures can be retailed for 35c. or less.

Special Exclusive Agencies

In order to give the jobber a real incentive to feature and push TUSCAN Folded Toilet TISSUE we are making a very special exclusive proposition to one progressive jobber ONLY in each territory — on a CONTRACT basis.

Write For Full Information

Write to us today for full information about our special agency proposition.

PELICAN PAPER COMPANY

San Francisco Sole Distributors for the United States **California**

Editorial

Vol. LXXVIII New York, February 28, 1924 No. 9

HENRY J. BERGER, Editor

NORWAY'S LABOR DIFFICULTIES

More labor troubles have beset Norway according to reports reaching New York during the week. As usual the strikers are active in the pulp and paper industry and it is believed that they have succeeded in shutting down all of the mills in the country.

This means a definite loss of 1743 tons of pulp a day to the world. The industry of Scandinavia has been thrown into a chaotic state more than once within recent years by a shutdown due to labor troubles. Their problems are, to a certain extent the problems of paper manufacturers in the United States, for it has been amply demonstrated that upsets in market conditions there affect the local market sooner or later.

Of course the narrow and unsympathetic point of view to take is to say that it is a good thing when a large competitor is crippled so that he is put out of the race. If the present strike lasts for a long time the American manufacturers will doubtless have good pickings and it may even have the salubrious effect of tending to stabilize the price of domestic pulp.

Taking a long view of the situation, however, the thing is bound to have an adverse effect. Whenever the Scandinavian manufacturers are pressed for money and anxious for a quick turnover they do not hesitate to undersell our mills by so much that they succeed in getting a large share of the business away from them. This plunges the market here into a period of depression which lasts for a good deal longer than the cause and brings about a good deal of discomfort. Thus we can sympathize with the Norwegian paper men not only from the broad human standpoint, but also from a selfish one.

It is not the province of the PAPER TRADE JOURNAL to attempt to pass upon the merits or demerits of a situation existing several thousand miles away in a foreign country. Whether the unions or the employers are correct is a matter for the judgment of experts.

It does seem as though there were a good many more disagreements in the Norwegian mills than seems necessary. We have our serious labor problems in this country, but on the whole they work themselves out with both sides attempting to bring about a satisfactory settlement.

Why is it not possible for labor and capital to do the same in Norway? It would appear that there is something fundamentally wrong with the system there whether it is too much radicalism on the one side or too much conservatism on the other.

Worker and boss are both human beings, rational animals, and they should be able to get along without constant bickering. Each is essential to the other and there are few in this country who do not realize it. All sorts of methods are used in the United States for bringing about closer relations between the two and, in spite of a few setbacks, things seem to be progressing in the right direction.

TAXES AND EXTRAVAGANCE

With a national income of more than $50,000,000,000 our country in 1922 took more than $7,000,000,000 for taxes. Since 1913 taxes in this country have increased 204 per cent. Those are statistical facts and the questions the figures prompt are: "Why?" and "How long will this continue?"

It is only to be expected that a burden resulting from the war should still be felt but the pitiful part of the story is that the galloping disappearance of our shekels in taxes is not due to a proper burden thrust upon us as a result of the war but is due to a war-created extravagance for which there is no excuse and no apology.

Extravagance in government is not alone to be laid at the doors of our government but it extends to our cities. It is not a question of politics but a question of business management and the business management is, in too many respects, faulty.

We have grown to speak of government jobs as political plums and plums are popular because they are juicy. We have learned to think of government jobs as something juicy and, in the main, our contention is not far from being correct. There are too many soft berths, too many jobs created for men who have done someone a service and must be rewarded, there are too many men after government places because they think the places are soft and because they are too lazy to make good at a regular job where a regular employer will make it his business to see that they earn their money.

Many of the job-holders are nothing more than leeches. They have no more license to be on the government, state or city payroll which they adorn that the writer has to step up to the sub-treasury and demand such funds as he might desire.

In regular business mere chair-warmers are not found to any great extent but in government management they appear to be essential. Once in awhile they have to bestir themselves and engage in a little activity to indicate that they are really needed. On such occasions they yawn, stretch themselves and proceed to do whatever they have to do in a slip-shod, slovenly way.

Very recently the writer desired to transact a little business with a department of our government. He wrote stating his case and asking for the information desired. In return he got all the printed matter the department had on hand and his own letter, crumpled up and shoved into the envelope, came back with it. Whoever handled the matter did not deem the letter of sufficient importance to file. And the most lamentable part of it was that not a word in all the printed matter answered the questions asked or touched on the case in question.

Any business house that transacted business in that manner would find itself sooner or later in the bankruptcy court.

Until politics is eliminated or reduced to a minimum in government management, until waste and extravagance is done away with, until political favors cease to be paid for at the expense of the public, taxes will be in order and American business will continue to groan and will find itself hard pressed in spite of all outward appearances of great prosperity.

If we could swap a whole lot of professional politicians—both Democrats and Republicans—for a few good business managers who have no axes to grind, we would be a whole lot better off and our national government and our cities would not suffer either.

Paper Salesmen Hold Mid-Winter Luncheon

The members of the Salesmen's Association of the Paper Industry did not let such minor events as a blizzard or the rivers flowing through New York streets, prohibit their attendance at the second Annual Mid-Winter Conference which was held at the Yale Club, New York, on Wednesday the twentieth. The large attendance was rewarded by the interesting talks and round table discussions which followed the luncheon.

H. V. Kaltenborn, associate editor of the *Brooklyn Daily Eagle*, gave a twenty-minute talk which covered the Income Tax, Immigration, Oil Scandal and a review of the European situation. He regarded as positive the passing of the Mellon bill, regardless of the politics injected into the situation; he opposed the Johnson immigration bill, stating the industrial and agricultural situation in this country demanded unrestricted immigration; the oil scandal he demanded should receive a thorough expose and that the giver of the bribes should be equally dealt with as the receivers; the European situation in his opinion was being rapidly clarified and expressed confidence that within six months Germany would be firmly on the way to the rehabilitation of its industrial life and assume its place in the world's business.

President Ewing of the Association called on various members representing the different grades under their sales jurisdiction as to their opinions of the business outlook and without dissent all expressed optimistic views.

President H. W. Stokes of the American Paper and Pulp Association congratulated the members on the growth of their association and asked for their co-operation in making more helpful to the entire industry, the work being carried on by the parent association. He called attention to the quantity of foreign paper which was being imported and the difficulty being experienced in having it properly classified to insure payment of the proper duty.

President P. T. Dodge of the International Paper Company reviewed the news print situation, telling how foreign news was affecting the domestic situation as well as the effect the Canadian pulpwood embargo will have on the industry.

J. L. Fearing, sales manager of the International Paper Company and president of the Salesmen's Association, who has been making a study of the foreign invasion of all grades of paper, outlined a plan which had been drawn up by Attorney Henry Wise to meet this situation. The plan calls for the creating of a bureau which will devote its entire efforts to investigating all imports of paper, ascertaining their original source as well as destination of shipment, seeing to their being properly classified at port of entry—in fact complete and accurate information so as to insure the foreign product being placed on an equally competitive basis with domestic products. Mr. Fearing presented his plan to give the Association members ample opportunity for its analysis before its being further discussed at the annual meeting in April.

Souvenir Book of Billeruds Aktiebolag

Billeruds Aktiebolag of Saffle, Sweden, are celebrating their twentieth anniversary by sending to their friends of the paper trade a wonderful souvenir book with many excellent cuts illustrating their various interests.

Billeruds Aktiebolag own 349,624 acres of timber land, four power stations, five wood pulp mills, four sulphite mills, a sulphate plant, three paper mills, four saw mills, two alcohol mills, etc. These interests lie scattered throughout the most picturesque Swedish country and the souvenir books tells the story of all these interests purely by means of pictures.

The illustrations show pictures of the office buildings, the homes of the various officers, the homes of the employees and scenes which show the activities in reforestation, precautionary work against forest fires, timber felling, log working, mill activities, etc.

One gets from a study of these pictures a direct insight into the varied interests of the concern and an intimate idea of the work done at the various big mills. The book, as a matter of fact, is one of the most interesting that has ever come to the desk of the PAPER TRADE JOURNAL.

Ross Can Co. Plant Being Sold

Under the Bankruptcy Act, tenders are being called up to March 12 for the entire plant, equipment, fixtures and stock-in-trade of the Ross Can Company, Limited, of Bowmanville, Ont. The company manufactures paper and tin cans and has been in operation for the past four years. The value of the machinery, equipment and plant is placed at $128,244 and of the stock-in-trade, $26,936. The town of Bowmanville owns the building and land and, in 1919, gave the Ross Can Company a franchise, by which it had a lease of the building and land for ten years at a rental of one dollar a year, free from taxes except school tax, and the right to purchase the building and land for $35,000. The building itself cost in the neighborhood of $60,000. For the second ten years, the Ross Can Company was to pay a rental of $4,537 in monthly installments of $378 and also full taxes. It is understood that this franchise can be renewed to the new purchaser.

Ben Corday Joins Petrequin Paper Co.

CLEVELAND, Ohio, February 11, 1924.—Ben Corday has joined the Petrequin Paper Company. In announcing this new connection E. A. Petrequin, president of the company says:

"It is our desire to be helpful to those of our clientele who value practical suggestions for the use of high grade papers of superior qualities for letter-press printing. To that end, in order to be of additional service, we have prevailed upon a master printer to join our organization and to lend his exceptional ability in helping you to determine how to select suitable papers for particular uses and thereby elevate the standard of your publicity. We feel it is our privilege to attest to his well-earned reputation for many years of notable achievement. His knowledge of the requirements for high grade papers qualifies him to be of great service to our increasing list of friends."

Nashville Paper Stock Co. Moves

NASHVILLE, Tenn., February 23, 1924.—The Nashville Paper Stock Company has removed to its new and larger quarters at the corner of Church street and First avenue north. The new building is owned entirely by the company, contains five stories and has floor space of 50,400 square feet, considerably more than was in the old building.

The business was started in 1908 by D. R. Ledbetter, secretary-treasurer and general manager, in a small space on the top floor of a building on Second avenue, north, being the first paper stock house south of the Ohio river, it is said.

They soon outgrew this location and moved to Second avenue and Church street and have now outgrown that location.

To Make Pelican Toilet Tuscan Paper

SAN FRANCISCO, Cal., February 16, 1924.—The Pelican Paper Company, Battery and Vallejo streets, is about to put on the market a new folded tissue toilet paper packed in cartons. This Tuscan Tissue is used in connection with the Tuscan fixtures a fixture designed particularly for household use. The concern has recently obtained control of the patents covering both the fixture and the carton in which the paper is packed. The manufacture of this paper will commence in about 90 days and in the meantime the company is establishing exclusive agencies on this line. It will be the company's policy to place it with one good live jobber in each of the larger cities.

WE ARE GLAD TO BE KNOWN BY THE COMPANY WE KEEP

SOME OF OUR CUSTOMERS FOR 1923 ONLY

Twenty mills placed 2 orders in 1923. Eight mills placed 3 orders. Three mills placed 4 contracts. Two mills gave us 6 repeat orders, and two mills gave us 8 separate repeat orders in 1923 alone.

REPEAT ORDERS OUR BEST RECOMMENDATION

Let us take care of YOUR HEATING and VENTILATING PROBLEMS.

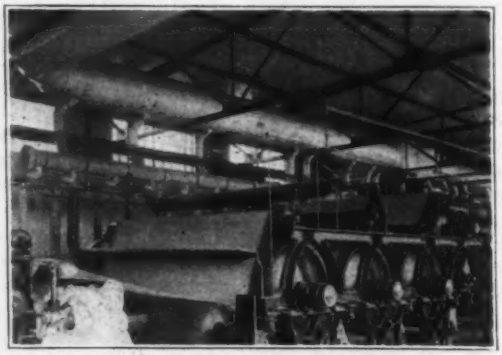
*Shows mills that also placed contracts with us in 1922

*Acme Paper Company (2)
*American Coating Mills (2)
*American Photo Products Company (2)
*American Writing Paper Company
Backus-Brooks Company (2)
Bagley & Sewall (2)
Bathurst Company, Limited (2)
*Becker, Smith & Page, Inc.
Beckwith Manufacturing Company (2)
*Bird & Sons, Inc. (2)
Bogalusa Paper Company, Inc.
Reg. N. Boxer Company, Limited (2)
J. F. Boyle Company
L. L. Brown Paper Company (2)
*Byron Weston Company
*Campbell Wall Paper Company (4)
Central Paper Company (2)
Certain-teed Products Corporation
Champion Coated Paper Company
Chicago Coated Board Company
Chicago Varnished Tile Company
Cincinnati Paper Board Company
Colin Gardner Paper Company
*Cushnoc Paper Company
*DeGrasse Paper Company
*Dennison Manufacturing Company
Donnacona Paper Company, Limited (3)
*Dryden Paper Company, Limited
Eddy Paper Corporation
Everett Pulp & Paper Company
Falulah Paper Company
*Federal Paper Board Company, Inc.
Fillmore & Slade
*Fort Orange Paper Company
Fox River Paper Company (2)
Robert Gair Company
Gardner-Harvey Paper Company
*Gilbert Paper Company
P. H. Glatfelter Company
Great Lakes Paper Company, Limited
*Great Northern Paper Company (8)
*Robert Griffin Company (2)
Haloid Company (3)
Hammond Bag & Paper Company (2)
Hollingsworth & Whitney Company
Illinois Varnished Tile Company
*Imperial Wall Paper Company
*International Paper Company (3)
Joliet Wall Paper Company
Kimberly-Clark Company (3)
E. M. Kratz (2)
Kupfer Brothers Company
Laurentide Company, Limited
Mac Andrews & Forbes Company
John A. Manning Paper Company, Inc. (2)
Marinette & Menominee Paper Company
Mattagami Pulp & Paper Company, Limited
Mead Fibre Company (2)
Nashwaak Pulp & Paper Company, Limited
National Biscuit Company
National Fiber Textile Company
National Folding Box Company
Nekoosa-Edwards Paper Company, Inc. (5)
New Jersey Coated Paper Company
*New York & Pennsylvania Company
Ohio Box Board Company (3)
Oregon Pulp & Paper Company
Oxford Paper Company (6)
Paraffine Companies, Inc. (2)
*Paterson Parchment Paper Company (4)
*Peshtigo Paper Company
Plattsburgh Wall Paper Company
Price Brothers & Company, Limited (6)
Reliance Mill & Trading Company
*River Raisen Paper Company
Riverside Fibre & Paper Company (2)
Rogers Paper Manufacturing Company, Inc.
A. Sanderson & Sons
Saranac Pulp & Paper Company
Schmidt & Ault Paper Company
*Sears Roebuck & Company (3)
Southern Paper Company (2)
*Spaulding Fibre Company (3)
Tileston & Hollingsworth Company
*The Tissue Company
Uncas Paper Board Company (3)
*Underwood Paper Mills, Inc.
Upson Company
*Visscne Company
Waldorf Paper Products Company (4)
John Waldron Company (3)
Wausau Sulphate Fibre Company
Wayagamack Pulp & Paper Co., Limited
*West Virginia Pulp & Paper Company (8)
Whiting-Plover Paper Company (2)
Windsor Locks Paper Mills Company
York Card & Paper Company

"BRINER ECONOMIZERS"

MACHINE ROOM VENTILATION

VAPOR ABSORPTION SYSTEMS



UNIT HEATERS

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"Ross" System, P. H. Clatfelter Co., Spring Grove, Pa.

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ROSS ENGINEERING OF CANADA, LIMITED

New Birks Bldg., Montreal

Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G.MacNAUGHTON, Secretary

DISCUSSION OF STANDARD ATMOSPHERIC CONDITIONS FOR PAPER TESTING

By E. O. Reed, Chief of Tests, Government Printing Office

Any atmospheric change, whether in temperature or relative humidity, which affects the moisture content of paper, and thus the physical properties of the cellulose, sizing or other constituents of the paper, will consequently affect the physical properties of the paper as a whole. Although it is fully appreciated that these atmospheric changes, either of temperature or relative humidity, produce marked changes in paper, careful consideration has never been given to the selection of a standard condition for testing. Paper testing has been conducted for a number of years at 70 deg. F. and 65 per cent relative humidity by the very few laboratories that have taken any steps whatever to test under uniform conditions. In fact, the T. A. P. P. I., recognizing the need of standard uniform conditions, has recommended a relative humidity of 65 per cent and temperature of 70 deg. F.

Should Study Use and Service Required

It is doubtful if there can be found a logical reason for the selection of such a high relative humidity as 65 per cent. It must be borne in mind that in determining upon uniform standard atmospheric conditions for testing paper or any other material, a careful study should be made of the actual use and service required and under what atmospheric conditions the material must be satisfactory. Nevertheless, it seems that on selecting a 65 per cent relative humidity this was entirely lost sight of. The selection of 65 per cent relative humidity as a standard testing condition was due to the fact that it had been adopted by the German Imperial Institute for testing materials at Gross-Lichterfelde in about 1890.[1] The only explanation which can be found for their selection of this humidity is that since the average outdoor relative humidity is more than 65 per cent and the indoor humidity much lower, it is easier to maintain a high relative humidity.

This surely cannot be considered a sound argument for the adoption of a standard relative humidity of 65 per cent, if we consider at all the actual indoor conditions under which paper is used. Paper or any other material should be tested under conditions where a direct comparison may be made between the tests obtained and the actual serviceability. These conditions must be set so as not to favor the material, but to place it under average conditions, or possibly even under more severe atmospheric conditions than it must be exposed to and under which it must be handled.

The average outdoor relative humidity in most localities in the United States is approximately 70 per cent. Wilson[2] states that during the winter months the normal outdoor relative humidity over the more populous portions of the United States, especially east of the Missouri and north of the Ohio River, is 72 per cent, and that the average diurnal range is from 60 to 85 per cent. He determined the indoor relative humidity is heated buildings in sevral widely separated parts of the country, on the coast, in the interior, and states that it varies from 24 to 33 per cent, and that during the winter months the indoor relative humidity is about 42 per cent lower than the outdoor. The average indoor humidity during that portion of the year when artificial heat is required in the United States, he states, is lower than that of the driest climate known.

Indoor and Outdoor Humidity

Personal observations on indoor atmospheric conditions extending over several years, at Washington, D. C., and other points, very definitely show that the indoor relative humidity, especially in the winter months of the year, is much lower than the outdoor relative humidity, and that although the mean annual outdoor relative humidity at the points covered in this investigation was about 70 per cent, the mean annual indoor relative humidity was between 35 and 45 per cent.

During the greater part of the year—October through May—when artificial heat is required, the average monthly relative humidity indoors is not over 40 per cent, and during the five colder months averages less than 35 per cent. Frequently, in winter, the relative humidity will be as low as 15 or 20 per cent, averaging approximately 30 per cent for December, January and February. During June, July, August and September the average indoor relative humidity is higher than 40 per cent, and at this time of the year may go as high as 70 or 75 per cent for a few days at a time; and sometimes, but only for very short intervals, even somewhat higher than this. However, the averages noted for the month of June were between 44 and 49 per cent; for July between 44 and 58 per cent; for August between 49 and 50 per cent; and for September between 55 and 65 per cent. In no month did the average indoor relative humidity equal the existing average outdoor relative humidity, but averaged from 15 to 40 per cent less. The highest indoor relative humidity noted occurred in August and September. The colder the climate the lower the average indoor relative humid-

(1). "Mittheilungen a. d. K. Technischen Versuchungsanstalten," 7 (1889), 2; 8 (1890), 8 to 19.

(2). "Atmospheric Moisture and Artificial Heating," Proceedings of the Convention of Weather Bureau Officers, 1898.

ity, owing to the longer requirement for artificial heat, and the warmer the climate the higher the average relative humidity indoors.

The largest quantities of paper are used indoors where the above average living and working conditions are maintained throughout the year. It must be assumed, therefore, that a humidity approximating 45 per cent and not one of 65 per cent is more in harmony with the actual conditions under which paper is used and under which it should be tested.

Standard at Government Printing Office

Giving careful consideration to these facts the Government Printing Office has adopted a standard testing condition of 50 per cent relative humidity and a temperature of 70 deg. to 75 deg. F. For maintenance of these conditions a testing room, designed by the Chief of Tests, which automatically operates day and night, was constructed about two years ago, and has continuously maintained a relative humidity of 50 per cent and a temperature of 70 deg. to 75 deg. F. This installation has been found entirely commercial and not unreasonable in cost.

With the maintenance of any humidity for testing, it is also necessary to control the temperature within a certain range of from 70 deg. to 75 deg. F., and the cooling system necessary for this control will also be sufficient to dehumidify during the few short periods of the year when this is necessary. It has been found, from information obtained from engineering companies, that the cost of maintaining a 50 per cent relative humidity and 70 deg. F. temperature is the same or less than that of maintaining 65 per cent at this temperature. This is contrary to statements heretofore made in defense of 65 per cent relative humidity.

It is a well-known fact that papers in actual service do not stand up in direct proportion to laboratory test values at 65 per cent relative humidity. This is especially marked in regard to folding quality, which, when considered with the other tests, is most indicative of the serviceability, durability and equality of the paper. All papers exhibit a better folding quality at 65 per cent relative humidity, very few being unsatisfactory at this unusual condition. Yet some papers which are satisfactory at 65 per cent relative humidity are brittle and even unserviceable at normal indoor conditions. It is paramount, therefore, that a testing condition be selected which will give results most indicative of the real properties of the paper when in use.

Not the Same for All Kinds of Papers

From a wide experience with paper testing, especially as to folding quality, whether obtained by a folding endurance tester or by hand, it has been very definitely found that the effect of relative humidity or of temperature is not the same on all kinds of paper, or even on papers of the same grade or manufacture. This fact has been shown by other investigations to be true also of other physical tests. Hence, no factor can be used in calculating any physical test from results at one condition to equivalents at another or a standard condition, and comparative ratings of paper at one atmospheric condition will not be the same at another condition.

In the report of the Technical Committee[3], appointed in connection with the standardization of paper, the following statement was made: "This committee does not recommend a particular relative humidity at which paper should be tested, but it does recommend that this subject be considered and that some rather narrow limits of relative humidity be adopted, taking into consideration the average indoor relative humidity and the cost of maintaining constant humidity conditions in the testing laboratory." As stated, the Government Printing Office Testing Section has selected 50 per cent relative humidity and 70 deg. to 75 deg. F. temperature as a fair testing condition, and under these conditions our papers tested have shown the very properties in service as brought out by laboratory tests. It is recommended, therefore, that full consideration be given to the acceptance of these conditions as standard for paper testing.

(3). Paper Trade Journal, September 14, 1922, pp. 38-41

Recent TAPPI Elections

Recent elections to the Technical Association membership include the following:

Allen Abrams, Cornell Wood Products Company, Cornell, Wis.

F. L. Allen, Sandusky Foundry and Machine Company, New York, N. Y.

Donald Appleton, Champion-International Company, Lawrence, Mass.

Bentzen, T. C., Whiting-Plover Paper Company, Stevens Point, Wis.

Boyer, C. K., Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis.

G. L. Clark, Smith Paper Company, Lee, Mass.

H. D. Cook, S. D. Warren Company, Gardiner, Me.

C. J. Costello, Paper Section, Bureau of Standards, Washington, D. C.

M. C. Fleming, The Dorr Company, New York, N. Y.

H. M. Holmes, United States Testing Company, New York, N. Y.

B. L. Kassing, N. Y. S. College of Forestry, Syracuse, N. Y.

F. P. Kehew, George W. Wheelwright Paper Company, Leominster, Mass.

Lester Kirschbaum, Flintkote Company, New York, N. Y.

Z. Z. Li, Shanghai, China.

L. E. Longstreth, Gardner & Harvey Company, Middletown, Ohio.

K. S. Maclachlan, Lincoln Mills, Ltd., Merritton, Ont.

Wilhelm Mattsson, Bay Sulphite Company, Ltd., Port Alfred, Que.

William McBain, Vancouver, B. C.

W. D. Mount, Lynchburg, Va.

J. L. Parsons, Sterling Chemistry Laboratory, Yale University, New Haven, Conn.

W. O. Roe, N. Y. S. College of Forestry, Syracuse, N. Y.

W. C. Sharples, Kimberly-Clark Company, Niagara Falls, N. Y.

Sanfrid Silander, W. Rosenlew & Co., A/B Sulfitfabriken, Björneborg, Finland.

B. S. Summers, Port Huron, Mich.

E. F. Troop, P. H. Glatfelter Company, Spring Grove, Pa.

A. H. White, University of Michigan, Ann Arbor, Mich.

Recent Transfers in Membership Grade

Junior to Associate: E. W. Erickson, H. H. Harrison, A. R. Harvey, F. D. Libby, F. A. Naegeli, A. T. Randall, J. L. Riegel, John Stevens, Jr., W. A. Wylde.

Junior to Active: Israel Gordon, H. A. Legge, J. J. O'Connor, Theodore Safford.

Will Build New Line of Railway

Application is being made to the Ontario Legislature for an act of incorporation under the name of the Abitibi Railway and Navigation Company for the purpose of acquiring the railway, works and assets of the Abitibi Transportation and Navigation Company, Limited, and for the construction of a railway from Iroquois Falls to Stinson, formerly Hughes, station in the district of Cochrane, and in a northerly direction from Stinson to the northern boundary of the timber limits of the Abitibi Company. The capital stock of the company will be two million dollars and the head office will be in Toronto.

Adds Paper Finishing Room

Hamilton, Ohio, February 26, 1924.—What is said to be one of the largest paper finishing rooms in the world has just been completed at the plant of the Champion Coated Paper Company. The structure is 290 by 150 feet and attached, as it is, to the east plant of the company, makes the one building 1,230 feet long. The floor was constructed so as to permit of a weight of 500 pounds to the square foot.

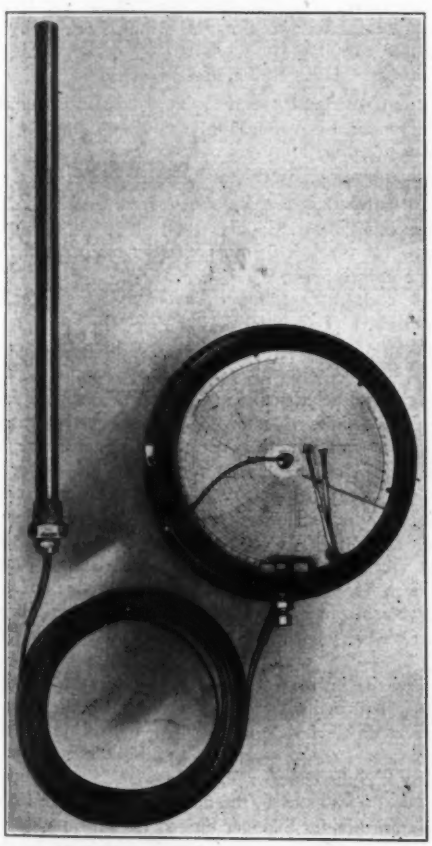
PRESSURE-TEMPERATURE RECORDS SIMPLIFY CLOSE CONTROL OF THE SULPHITE COOK

By C. E. Sullivan, Sales Mgr., The Foxboro Co., Inc.

Human nature being what it is, there is no disputing the fact that the easier a thing is to do the greater likelihood there is of getting it done right. Here is the reason why in almost every industrial process today no stone has been left unturned to simplify operations, even to the point of making them completely automatic.

The cooking of sulphite pulp may never be entirely automatically controlled, but much has been done to take the element of chance out of digester operation.

The first step in this direction was to replace the old fashioned stem thermometer and indicating gages with recording instruments. A thorough system of control necessitated the installation of three recorders on each digester; (1) a recording thermometer for temperature in the digester; (2) a recording gage for pressue of steam on the digester steam line; (3) a recording gage for steam pressure plus SO_2 gas pressure in the digester.

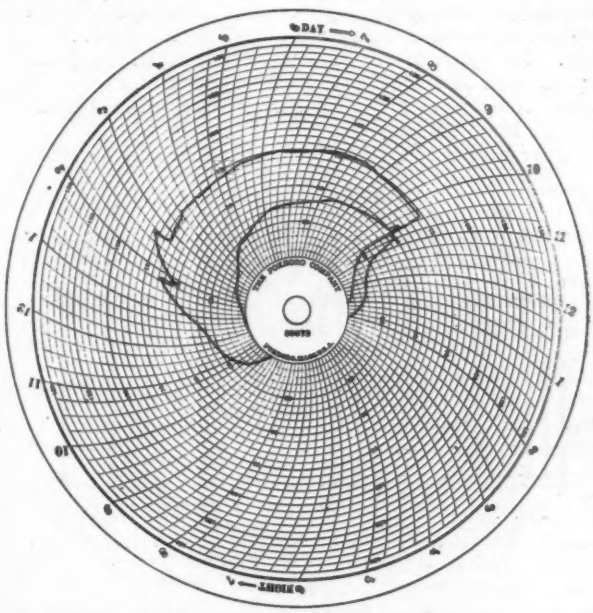


Pressure Temperature Recorder

By careful comparison of the charts from these instruments it was possible to calculate the gas pressure and regulate the cook.

But the leading instrument manufacturers were not content to let it go at that. They studied the problem of digester control and as a result produced a recording instrument especially designed to simplify the work of the operator.

This instrument consists of a recording gage and recording thermometer, the movements of which are both placed in the same case so that the two records are produced on the same chart. The pressure movement records the "gage" or total pressure in the digester, which is the steam pressure plus the pressure due to the SO_2 gas generated in the digester. The temperature movement records the temperature in the digester, but this is charted on the *pressure* scale so that the steam pressure, the pressure corresponding to the temperature in the digester, can be read directly from the chart without resorting to steam tables to transpose the temperature readings into pressures.



Temperature Reading

As a result the gas pressure, the difference between the gage pressure and the temperature-pressure, can be determined accurately by simple subtraction. A "gas curve" can be plotted without the least trouble.

The thermometer bulb and the fittings for this recorder are made of acid-proof material. No mercury is used in the instrument. The recorder is of the long-distance type, so that the case may be placed wherever most convenient for the operator.

The accompanying chart illustrates a typical cook as recorded by this combination instrument. As noted on the chart, the operator brings the digester up to working pressure, in this case 75 lbs. He then opens the top relief until the liquor comes. Thereafter he relieves from the top or side, using the chart as a guide, until the cook is completed and blown into the blow pits. The chart shows clearly how closely the total pressure is maintained, the gas pressure at every stage of the cook and the exact time of the blow. It is a complete picture of the process.

Needless to say the charts from this instrument are invaluable to the superintendent in developing standard cooking methods. This does not mean, however, that one single method of cooking can be adopted. There are too many variable factors such as kind of wood, whether wet or dry, size of chips, strength of acid, quality of steam, etc. But a thorough system of tests and records can be established so that these variables may be pre-determined and the correct cooling standard selected to meet each particular condition. The

development of these standards involves considerable study and experiment, but once they have been established uniform pulp—no matter how much the raw materials vary or how many different operators are handling the digesters—is assured.

The tremendous advantage of uniform pulp production makes the cost of installing up-to-date, simplified control equipment, such as this temperature-pressure recorder, insignificant compared to the resultant savings. A more extensive use of such equipment should do a great deal to bring about the much desired standardization of paper products.

THE "POSITIVE" FLUE GAS ANALYZER*

The "Positive" analyzer is a new hand apparatus for determining CO_2 in flue gases, which is based on the same principle as the Orsat. It is primarily intended to replace the Orsat, than which it is much lighter, smaller and sturdier. There is practically no useless space in the absorption chamber. The cocks are of steel and equipped with springs, so that there is no danger of their sticking; and moreover the absorbing solution does not pass through them. The apparatus can be transported quite readily, together with the water filter, and can be brought into operation at a moment's notice. A charge of 20° to 25° Baumé caustic potash solution is good for 200 to 300 analyses.

Further features of the "Positive" analyzer are as follows: (1) The graduation is carried out only to the maximum percentage of CO_2 which can be found in the class of determinations being carried out; (2) The tubing leading from the flue to the apparatus is filled with the gas and the sample is taken and measured simultaneously.

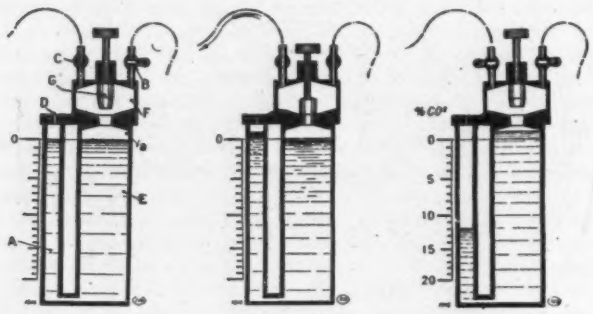


FIG. 1 FIG. 2 FIG. 3

Instrument Charged and Zero Adjusted.
Drawing the Gas Through the Measuring Chamber.
Final Position When Taking the Reading.

The graduation depends on the purpose for which the instrument is used; for instance, for respiration tests it is carried to 10 per cent, for combustion gases to 20 per cent, for coke oven gases to 25 per cent, and for analyzing the protective atmospheres surrounding tanks for grease and fat extraction by means of benzine the graduation goes up to 60 to 100 per cent. This variation in the scale gives maximum accuracy in each case, and it is obtained by means of a tube A, the diameter of which varies according to the scale required.

Scale Can Be Magnified

The scale can also be magnified along the portions most frequently used and contracted elsewhere by using a tube of suitable shape. However, a uniform scale is quite satisfactory; and further, if a curved tube were used it would have to be adjustable vertically, or else the zero would have to be fixed. The instrument, as shown in Figs. 1 to 3, has an adjustable zero, which makes it much easier to charge and allows different operators to adjust the zero to suit their eye with reference to the meniscus of the solution.

The zero is adjusted as shown in Fig. 1, cock B which is connected to the piping from the flue being closed to prevent any slight drop in pressure in the chamber owing to the draught in the flue. Cock C is left open, and the free surface of the solution in chamber E is thus connected to the atmosphere through a rubber tube and pump (not shown in the figure). A needle valve fitting over the opening D is also opened, so that the free surface of the liquid in A is also in connection with the outside atmosphere. A and E thus form communicating vessels and equilibrium is as shown in the figure.

Above chamber E, which acts as reservoir for the caustic potash solution, is the smaller chamber F which can be closed off from E by means of valve G, which is shown open in Fig. 1. The valve is in the same position when the reading is taken (Fig. 3); but when the sample is being drawn into the apparatus and measured the valve is closed (Fig. 2). On closing this valve, which is done after closing cock C, the volume is increased by that portion of the stem which was outside the chamber and is brought into it when lowering the valve; and this causes a rise in the level of the solution in A equal to a reading of about 1 per cent, as shown in Fig. 2.

How Filter Is Connected

The filter is connected between the flue and the instrument.

The determination is carried out as follows, starting from the position shown in Fig. 1:

(1) Close cock C;
(2) Close valve G;
(3) Open cocks B and C (Fig. 2);
(4) Draw gas through the apparatus by means of the pump;
(5) Close cock B;
(6) Close cock C;
(7) Open valve G (Fig. 3);
(8) Shake;
(9) Take the reading.

The essential characteristic of the "Positive" analyzer is the fact that a perfectly definite volume of fresh flue gas is drawn in and measured quickly and accurately at atmospheric pressure, and analyzed very rapidly without having to take an yspecial precautions. The volume is measured automatically, and the measurement at atmospheric pressure is ensured by taking the precaution to close cock B before cock C. The connections from the flue to the instrument, the measuring chamber, and the outlet tubing and pump are all filled with fresh flue gas under a very slight vacuum; and on closing cock B the pressure in F is brought up to atmospheric pressure by drawing back a very slight amount of the gas in the piping or pump.

Agitation of the instrument increases the contact surface of the liquid and gas and facilitates absorption of the CO_2. The absorbing solution readily splashes up into the measuring chamber, the walls of which are carefully polished to allow the solution to drain back perfectly into the chamber E. Otherwise, if any drops of solution adhered to the walls of F, the flue gas would have to be drawn through the apparatus for a longer time at the subsequent determination so as to neutralize traces of potash remaining in the upper chamber.

It will be readily seen from Fig. 3 that the volume of CO_2 contained in the sample before absorption is replaced by an equal volume of the absorbent solution, the level of which consequently falls in A. Owing to the difference in the level of the liquid in the two chambers the gas in E and F is under a theoretically smaller pressure than atmospheric; but the difference is so small as to be practically negligible, even when the zero is very low, that is, when there is a relatively large amount of gas above the solution in E.

*(Translated from *La Technique Moderne* xv, 709 [November 1st, 1923], by A. Papineau-Couture.)

MICROGRAPHIC ANALYSIS OF A SAMPLE OF WRITING PAPER*

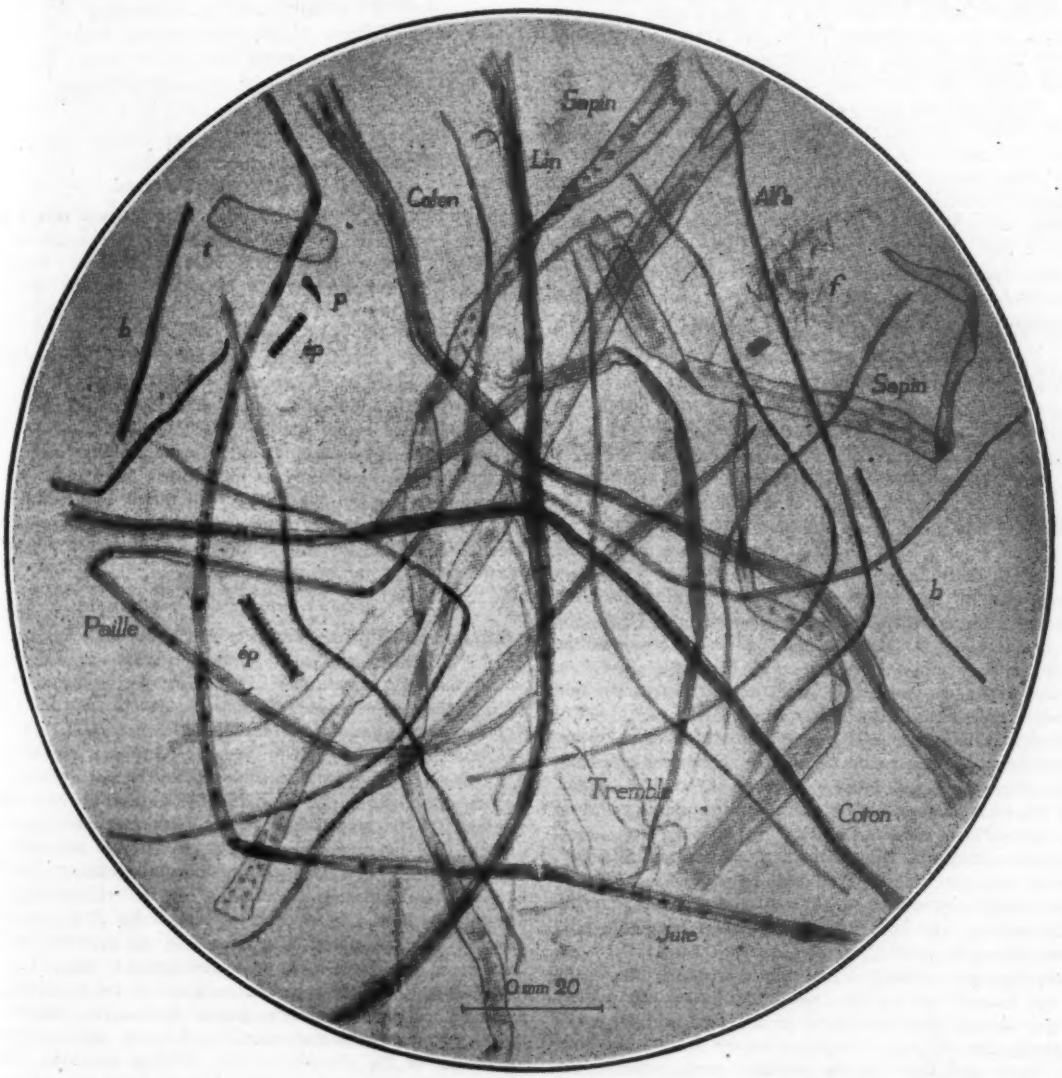
By L. Vidal.

Suppose we have a sample of fine, white writing paper, with no very characteristic appearance, and that we wish to determine the nature and amount of the fibers used. We first proceed to separate the fibers by boiling in a dilute alkali solution, and after washing thoroughly and staining with zinc chloro-iodide we examine it under the microscope with a medium power objective. Taking a field at random we shall see something like what is shown in the figure, namely, a rather complex and somewhat confused mixture.

Qualitative Examination

The color of the fibers, which unfortunately cannot be reproduced on our microphotograph, greatly simplifies our work by showing immediately that we are dealing with two distinct classes of materials: first, rags, which are colored red; and second, various chemical pulps which are colored blue or mauve. There are no yellow fibers, indicating the absence of groundwood and of crushed jute.

Let us first look at the rag fibers. There are two cotton fibers extending transversely across the field, and one of flax (or hemp,



Explanation of Figure:

Alfa, Cotton, Jute, Lin, Paille, Sapin, Tremble, *t*, *ep*, *b*, *p*, *f*, Esparto Cotton, Jute, Flax, Straw, Spruce, Aspen, Barrel-shaped parenchymatous cells of straw, Epidermal cells of esparto and of straw, Rod shaped cells of esparto and of straw, Comma cell of esparto, Disintegrated fibrillae. Magnified to about 110 diameters.

*(Translated from *Science et Industrie* vii, No. 108, 21-24, January 31, 1924, by A. Papineau-Couture.)

which cannot be distinguished from it), which is vertical and practically in the center of the field. The distinction between the two is quite easy, the cotton having neither nodes nor transverse breaks and being in the form of flat, more or less twisted ribbons. The delicate fibrillae (*f*) also come from the rag furnish. They still partially adhere to the fibers from which they were torn off by the beating.

Now for the chemical pulps. They present quite a variety of shades: mauve, brownish mauve, blue, slate blue, which shows that we are dealing with several different kinds of pulps.

First of all we note a regular, round fiber, which is too long to be completely visible and which is a dirty mauve mixed with brown. It might at first be taken for flax, for it is of the same size, and has the nodes, breaks, and narrow lumen which are characteristic of flax. But the color which, though rather indefinite, is far from being as red as the rag fibers, casts doubt on this conclusion. As the length of the fiber can give valuable indications, let us take a lower power objective so as to be able to see the whole fiber in a single field. The ends of the fiber now show up as gradually tapering and unbroken, which indicates that the fiber is still of its full natural length. Measurement, either by means of a micrometer or by comparison with the known diameter of the field, gives a length of two and a half millimeters. It therefore cannot be flax, for unbroken flax fibers are, with very few exceptions, about ten times as long as this. The fiber is jute. It has given us a little trouble, but the remainder will go quite smoothly and quickly.

Sulphite Easily Recognizable

There is no difficulty in recognizing the long, wide and highly transparent ribbons of spruce sulphite, which are light mauve and have numerous pits consisting of two concentric circles.

As to the fine, round, slender, and rather numerous fibers, at first sight they certainly look like esparto, and this would seem to be confirmed by the presence of toothed epidermal cells and of rod-shaped cells; but this proof is not sufficient, as these elements are not found only in esparto, by any means. But the comma which we see at the left towards the top removes all doubt, for it is absolutely characteristic of esparto. And, quite luckily, right beside the comma we find a large, transparent, barrel-shaped cell. These cells are never found in esparto, but are found in straw. So that the fine fibers referred to are not esparto, as we had believed at first, but a mixture of esparto and straw, which is quite frequently used in the manufacture of this grade of paper.

There finally remain, near the center of the field, two rather short fibers (about one millimeter). These are unbroken flat ribbons, with sharp extremities, and seem to belong to some deciduous wood; but the total absence of any characteristic vessels makes it practically impossible to identify them.

We have now obtained all the information we can from this field, and we must examine others. We shall soon find one of the characteristic vessels for which we are looking: it has a terminal, unreticulated opening, and is literally honeycombed with pits—it is characteristic of aspen wood.

This completes the qualitative analysis; and moreover, in the course of our examination we have noted the scarcity, the almost total absence, of jute, the fiber found in the first field examined being practically the only one. Summing up, we see that we have rags, both cotton and linen, spruce sulphite, aspen, esparto, and straw—six different kinds of fiber, with a trace of jute thrown in.

Quantitative Estimation

The next step now is to estimate the proportions of these different stocks.

Let us consider the rag stock first, bearing in mind the fact that it is quite heavy on account of its thickness, and that for equal surfaces on the microscope slide it weighs about three or four times as much as the wood celluloses. It is necessary to examine numerous fields, and even to prepare more than one slide, for in spite of all our precautions the fiber suspension is never homogeneous. We finally reach the conclusion that there is about 30 per cent of rag stock, and there seems to be about wice as much cotton as flax. By difference we have the total amount of chemical pulps, and we must estimate their relative proportions. Here again the densities come into play, and we must be careful not to allow too high a figure for the spruce pulp, the thin flat ribbons of which have a very large surface in proportion to their weight. Finally we conclude that the composition of the mixture is about as follows:

Cotton rags	20
Linen rags	10
Spruce sulphite	40
Esparto	15
Straw	10
Aspen	5
Jute	Trace
Total	100

Confirming the Findings

But as these figures may not be accurate to more than 5 per cent, or even 10 per cent, our best procedure is to compare the sample with one of known composition. If we do not have a fiber mixture of exactly the same composition as mentioned above, it is an easy matter to prepare one; and a careful comparison will then show if our figures are right, and if not what corrections should be made. If, for instance, we find that there is less straw and esparto than we have estimated, we must correct our figures accordingly.

Finally, mention should be made of the degree of beating, which has been pushed rather far, and also of anything else which may be specially worth noting. In the present instance there is nothing particular. The complexity of the composition leads us to suspect the presence of waste paper stock; but this is by no means certain. The presence of particles of printer's ink on the fibers would afford absolute proof of this; but in their absence it is better to refrain from mentioning it.

Determination of the Viscosity of Cellulose. *Chem. Age* (London) 9, 222-224 (Sept. 1, 1923). From a study of the determination of the viscosity of solutions of cellulose in cuprammonium by the falling sphere viscosimeter (Gibson and Jacobs, *J. Chem. Soc.* 117, 473; Gibson, Spencer and McCall, *J. Chem. Soc.* 117, 479; Joyner, *J. Chem. Soc.* 121, 1511, 2395. See *Pulp & Paper* 20, 1075.) various precautions are recommended to obtain consistent and accurate results, and apparatus is described by means of which these precautions can be readily carried out with maximum ease. Large quantities of cuprammonium hydroxide solution are most readily prepared by the action of air and ammonia solution (which must be free from carbonates) on pure copper. Using the specified strong ammonia solution necessary for the formation of good cellulose solutions, about 10 g. of copper per liter dissolve rapidly, the amount increasing after continued action to about 12 to 13 g., of which 11 g. of the copper are present as the hydroxide. Such solutions contain a trace of cuprammonium nitrite, which does not influence appreciably the solvent action of the suprammonium hydroxide, or the viscosity of the cellulose solution. The bottle in which the cellulose is dissolved is first alternately evacuated and filled with hydrogen several times to remove all traces of air, and solution is effected in the presence of hydrogen under a slight pressure to prevent entrance of air. Tables of results are given which show the effects of: irregularities in material, disintegration, drying by heat, cuprammonium nitrite in the solution, variations in the composition of the cuprammonium solution, and light; and also comparison of results obtained with solutions prepared by the old and new methods, and comparison of pressure and vacuum methods of dissolving the cellulose.—A. P.-C.

DEFINITION OF PAPER TERMS

Supplementary Report of the Committee on Definitions

PREPARED BY F. A. CURTIS, FORMERLY CHIEF PAPER SECTION, BUREAU OF STANDARDS, AND C. J. WEST, CHAIRMAN, COMMITTEE ON DEFINITIONS, NATIONAL RESEARCH COUNCIL, WASHINGTON, D. C.

(*Continued from last week*)

P

PLEATING ROLLS. A manila wrapping paper, in long rolls; used by tailors to lay over dress goods during the pleating operation.

PLY. A term generally used to designate a solid web of paper, which when brought together in process of manufacture, or by pasting, builds up a board to a desired thickness.

POINT. A unit of thickness of paper or board; equals one one-thousandth of an inch (1/1,000 inch).

POKER CHIPS, PAPER. Discs, die-cut from heavy tough check or hard fiber; used in various colors, representing different values, in games of chance.

PORTMANTEAUX BOARD. *See* Binders board.

POSTAL CARD PAPER. *See* Postcard paper.

POSTCARD PAPER. (a) A cardboard, coated or uncoated; used for postcard purposes; pasted or non-pasted book stock for printing illustrated post cards.

(b) A document manila or tag board made of sulphite, soda or mechanical pulp, with a smooth writing surface; used for postcards or cheap ticket work.

POSTER. Printed advertising matter, displayed on walls, boards, store windows, etc. *See* Poster Paper.

POSTER BOARD. A cheap cardboard; used for advertising purposes.

POSTER PAPER. Colored news or non-fading book paper; used for hand-bills, on bill boards and other similar purposes. *See* Colored poster paper.

POTTERY TISSUE. (a) A high-grade tissue, generally manila; used for wrapping pottery.

(b) A strong tissue, used for the transfer of designs to pottery. See Decalcomania.

PRESS BOARD—126. A kind of stiff, hard-rolled, smooth-surfaced solid board, made of sulphate, rags or rope; generally in colors and somewhat resembles vulcanized fiber.

PRESS COPY PAPER. A strong tissue of light weight; used for duplicating work; paper is moistened and placed over typewritten sheet and pressure is exerted.

PRESS SPAHN. See Press board.

PRINTED FRUIT WRAPPERS. A tissue or light weight sulphite wrapper; used for wrapping fruit for storage and shipment to prevent deterioration. *See* Fruit tissue.

PRINTED GUMMED TAPE. Gummed tape, made of book, rope, kraft or manila paper that has been printed.

PRINTERS' DRY PROOFING PAPER. See Proofing paper.

PRINTING PAPERS.—6. A general term descriptive of a class of papers, made from sulphite and soda pulps, old papers, and sometimes bleached mechanical pulp on a fourdrinier machine and containing varying amounts of loading material to produce a smooth surface for printing; generally slack-sized; used for printing books, magazines, etc.

PROFILE PAPER. (a) A black, rough cover paper; used for making silhouettes. *See* Silhouette paper.

(b) A kind of drawing paper used for profile work or levels by surveyors.

PROGRAM PAPER. A soft printing paper, free from rattle, for concert and other program uses.

PROOFING PAPER. (a) A high grade, smooth finish cardboard; used for making engravers' proofs.

(b) A cheap book paper or news; used for making galley proofs.

PULLEY BOARD. *See* Friction board.

PULP BARRELS. A barrel shaped container, made of molded wood-pulp, used for dry commodities such as dyes, etc.

PULPBOARD—127. A term referring to a kind of board, made on a multi-cylinder machine from mixed papers or mechanical pulp; may be combination (filled) or solid.

(a) Combination pulpboard is a board having a base or center of mixed papers, with a vat-liner on both sides made from manila clippings or mechanical pulp.

(b) Solid pulpboard is a board made entirely of mechanical pulp.

PULP CIRCLES. Discs cut from pulpboard.

PULP SALES BOARD. *See* Punch board.

PUNCH BOARD. A pasted chip or binders board, punched with holes and lined with a printed form indicating where board is to be punched; used as a method of selling some articles upon chances to both seller and buyer.

Q

QUADRILL FINISH. A fancy finish embodying a pattern of small squares, produced by a plater.

QUARTO. The resultant sheet when a sheet of paper is folded or cut into four parts.

QUIRE. A name given to a group of 24 or 25 sheets of paper; in coarse papers, 24 sheets and in fine papers, 25 sheets are considered a quire; one-twentieth of a ream.

QUIREFOLD. A term indicating that a separate package has been created by the folding of each quire; usually across the short way of the sheet; when folded with the length of the sheet, it is designated at "quirefold long-way."

R

RAG BOARD. A general term sometimes applied to binders, trunk and similar coarse boards to indicate that they were made principally of the cheapest form of rag stock.

RAG-CONTENT PAPER. *See* Rag paper.

RAG LINING. A light weight wrapping paper, made of mixed papers, news stock or clippings; used for lining cases, boxes or cartons; does not contain rag stock. *See* Bogus wrapping.

RAG PAPER. A general term, very loosely used, to indicate that some rag stock or cotton linters was used in its manufacture; term rag-content paper is used for same purpose.

RAG PLATE PAPER. A plate paper, made principally of rag stock; used for color printing.

RAG PRINTING PAPER. A high grade book paper, made principally of rag stock; used for printing when durability is essential.

RAG PULP. A form of pulp, made from rags independently of a paper mill and sold to paper mills; used in various grade of book writing and boards.

RAG WRAPPING. A term applied to heavy wrapping paper, made of mixed papers; does not contain rag stock and is merely a trade term for a cheap wrapper. *See* Bogus wrapping.

RAILROAD BOARD. A white-lined cardboard, with base of over-issue news; made on multi-cylinder machine; used for mailing cards, show cards, tickets, checks, tags and car signs; usually claycoated in various colors on both sides.

RAILROAD CARDBOARD. *See* Railroad board.

RAILROAD COPYING TISSUE. A very light weight yellow tissue, made largely of rags; used principally by railroads for making copies of a particular record or trainmen's orders.

RAILROAD MANILA. *See* Railroad writings.

RAILROAD TRANSFER PAPER. A colored newsprint; used by city

railway systems granting privilege of transfer from one car to another.

RAILROAD WRITINGS—906. A kind of writing paper, made from chemical or other wood fibers, hard-sized; finish generally high M. F., varying to low or antique; usually a bright buff or yellow.

RATTLE. The sound produced by snapping a sheet of paper between the hands.

REAM. A term used to denote a certain number of sheets of a specified size of paper; used in merchandising and to indicate the basis weight of paper; wrappings and tissues 480 sheets, book news and writings 500 sheets; in proposed standard substance basis, a ream of 500 sheets 25 by 40 inches is recommended.

RECORD PAPER. A high grade ledger paper; durability essential; suitable for county and other permanent records; term derived from that use.

RED MATRIX PAPER. A thin, compact absorbent paper of red color; used as one of the layers in building up a matrix; sometimes called red rag blotting. *See* Matrix paper.

RED RAG BLOTTING. *See* Red matrix paper.

RED ROSIN PAPER. *See* Sheathing.

REEL BANDS. A board, used in the manufacture of reels or cores; usually straw or chipboard.

REPPED FINISH. A term applied to paper passed through steel rollers which produce a raised or ribbed surface; may also be produced by felts having heavy warp threads.

RETREE. Imperfect papers taken from first sortings; second sortings.

RIBBON BLOCKS. Straw or chipboard cores, used for the center of rolls or bolts of ribbon.

RIBBON PAPER. Narrow strips of paper of different grades; so-called because of its width; generally book paper; used to protect ribbon when rolled or in bolts.

RIPPLE FINISH. A term applied to a finish resembling the ripples on the surface of water.

ROCKET PAPER. *See* Candle paper.

ROLLER MATRIX. A matrix mat, molded by being passed through or between a roller and the type form. See Matrix.

ROOFING FELT. *See* Roofing paper.

ROOFING PAPER. A general term applied to any material used in waterproofing upper decks of buildings.

(a) Prepared roofing: Saturated felts, saturated and coated with asphaltum, plain or with crushed slate or other grit imbedded in asphalt-coated surface.

(b) Built-up roofing: Saturated felts, saturated but not coated with asphaltum, put on roofing decks in plies or layers and coated or built up at the time of application.

(c) Roofing shingles: Saturated felts, saturated and coated with asphaltum, crushed slate, shell or gravel imbedded into the surface while hot then cut into various styles of shingles.

ROOFING WRAPPERS A term used to designate papers used for wrapping rolls of roofing or building paper; it may be kraft, sulphite, manila or bogus.

ROPE BAG PAPER. Bag papers manufactured of rope or bagging stock. *See* Rope Manila.

ROPE ENVELOPE PAPER. Envelope papers made of rope or bagging stock.

ROPE MANILA PAPER—814. A kind of wrapping paper, of manila color, made principally of rope stock, the remainder being free from mechanical pulp. This paper has very great strength and is used largely for cement bags, flour sacks, etc.

ROPE PAPER. A general term indicating paper made principally of old rope, whether manila, jute or burlap; used for exceptionally strong wrapping for heavy work.

ROPE WRAPPING. *See* Rope paper.

ROSIN-SIZED. A term referring to the addition of rosin to the beater to produce sizing effect. *See* Sizing.

ROSIN-SIZED SHEATHING. *See* Sheathing.

ROTOGRAVURE PAPER—616. A kind of highly-finished, uncoated printing paper, often made of bleached mechanical pulp; used for printing by the rotogravure process.

ROYAL. A size of paper, 19 by 24 inches.

RUBBER-STAMP MARK. A mark similar to a watermark, but impressed in the damp paper on the machine from a rubber band on the press rolls or baby drier, usually on grades made rapidly.

RUGS, PAPER. An article made of paper, cut to narrow widths in rolls, twisted to resemble twine and woven into rugs or carpets; paper is treated to resist moisture and colored for decorative purposes.

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SACK PAPER. A general term to designate papers used in the manufacture of paper bags; it is generally a rope, crepe, manila or sulphite stock. *See* Bag paper.

SAFETY CHECK PAPER. *See* Safety paper.

SAFETY PAPER—922. A kind of strong writing (bond) paper that has been sensitized, either by additions of chemicals in the beater, or by special printing in a manner to disclose alterations; used for checks, drafts, railroad tickets, premium coupons or any negotiable certificate of value.

SALESBOOK PAPER. A book or bond paper, of various colors; made up into books for sales record; used in connection with carbon paper to make several copies.

SAMPLE CARDS. Bristols or cardboard, used for display purposes by pasting samples of commodities offered for sale.

SAMPLING PAPER. A strong rope, jute or kraft paper, used by cotton and compress companies for wrapping samples of cotton, it being the custom to draw a sample from each bale.

SAND PAIL, PAPER. A container in the form of a bucket, molded from mechanical pulp.

SANDPAPER. A good grade of manila or unbleached rope, coated with a mixture of fine sand and glue; base paper should be pliable and durable; used for polishing and cleaning purposes. *See* Abrasive paper.

SANDWICH BAGS. Small bags, sometimes of glassine, suitable for enclosing sandwiches.

SANITARY CONTAINERS. Sulphite container board stock coated with paraffine, spirally wound into cylindrical cans; made in various sizes from one-quarter pint to half-gallon; crimped flange top and bottom, with fitted lids; suitable for liquid or semi-liquid food stuff.

SANITARY EATING DISHES. Dishes made from combination board, treated to be made moisture or waterproof, and to be used only once.

SANITARY TISSUE—72. A general term applied to a group of tissues which are absorbent, bulky and generally of rough finish, such as napkins and toilet tissues.

SANITARY WRAPPING PAPER—84. A term applied to a group of wrapping papers, prepared from sulphite or Mitscherlich pulp by mechanical action in the beater. This term is also used to cover the converted product prepared by treating paper with paraffin, sulphuric acid or other materials.

SATIN FINISH. A term applied to a smooth, satin-like finish of paper or bristol.

SATIN FOLDING BRISTOL. A cheap grade of stock resembling translucent, but with a manila or dark base; particularly adapted for folding purposes.

SATURATED FELT. A porous bulky chipboard or rag wrapping; treated with tar or asphaltum; used for roofing purposes. *See* Roofing paper.

SATURATING FELT—401. The term saturating felt is applied to those felts which are used as a vehicle to carry and hold various tars, asphaltum or other waterproofing compounds. These are sometimes designated as waterproofing felts.

SATURATING PAPER. *See* Saturating Felt.

SCOTCH PLAID. A plater finish given to the paper by inserting between pieces of cloth with a Scotch plaid design.

SEALING TAPE. Manila or No. 1 kraft, gummed on one side and put up in rolls of narrow width. *See* Paper parcel tapes.

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SEALING WRAPPERS. A heavy mill wrapper, made of Mitscherlich or sulphite pulp; high-finished; sometimes duplex in color; used for sealing ream packages of book and writing paper.

SEAMING CORDS. A cord, made of narrow strips or rolls of sulphite or kraft paper, twisted into a twine or cord; used as such within a covering of leather for the borders of leather seats in automobiles, etc.

SEAT BOARD. *See* Chairseat board.

SCREENINGS—85. (a) A kind of drab-colored wrapping paper, made of partially cooked pulp, broke pulp screenings and seconds; frequently full of specks or dark spots; used for cheap wrapping and packing purposes; sometimes machine-glazed.

(b) A general term used to designate paper made of partially cooked pulp; broke screenings and seconds; frequently full of specks or dark sports, as well as long slivers of wood; it is used for cheap wrapping and packing purposes.

SECONDS. Imperfect sheets; sortings.

SECOND SHEETS. (a) A term applied to typewriter paper of the same character as the letterhead used, but blank; used for continuation of letter that will not go on one page.

(b) Sometimes used to refer to light-weight manifold paper, on which carbon copies of letter are made at time of writing.

SECTIONAL PAPER. *See* Cross-section paper.

SEED-GERMINATION PAPER. A blue absorbent paper, the dye of which does not bleed or run when sheets are wet; used by seed men to grow seeds upon, with a view of ascertaining the percentage of propagation.

SEED PACKETS. A bag or envelope, made of heavy rope, jute or kraft paper, with a flap that can be doubled twice and fastened by means of clips attached to sides of flaps; used for mailing seeds and similar materials.

SEIDLITZ PAPER. A term given to light-weight paper, specially treated; used for packing seidlitz powders; usually in blue and white.

SELF-COLORED. A term applied to paper without the addition of color; natural color resulting from the stock used; term not extensively used.

SELF-SEALING PAPER. Wrapping paper, having a coating of paraffin, which when heat is applied, will stick; used principally on food packages.

SEMI-KRAFT. A wrapping paper, made of sulphate and sulphite, duplex in color; kraft on one side and manila or colored fiber on the other.

SEMI-VULCANIZED BOARD. An imitation of vulcanized fiber board; usually hard and stiff and made of all jute stock.

SENSITIZED. A term applied to any paper that is so treated as to be sensitive to light or chemicals; such as photographic, blue print, litmus or safety papers.

SENSITIZING PAPER—923. A term applied to those kinds of paper that are to be treated with a sensitizing material to make the surface of the paper sensitive to light or chemicals; refers chiefly to those papers used for manufacturing of photographic, blue print, photostat, etc., papers.

SHANK BOARD. Woodpulp, chemically treated, mixed with leather clippings, run on wet machines and highly compressed; used in shoes as substitute for leather.

SHEATHING—22. A term applied to a group of building papers, which are closely felted and relatively compact. This group of papers is used between rough boards and finish in outside walls of frame buildings, for protection against wind and dust.

SHEET-CALENDERED. A term applied to a process of finishing paper in which the sheets of paper are passed through a calender stock, but not in a continuous web.

SHEETING PAPER. News or book paper, used for the sheet lining of chip and straw boards.

SHEET-LINED CHIPBOARD—111. A kind of chipboard, which has been lined, after being cut into sheets.

SHEET-LINED STRAWBOARD—11. A kind of strawboard which has been lined after being cut into sheets.

SHELF PAPER. News, book or sulphite bond paper, cut in sheets, often with decorated or lace paper edge; used for lining shelves or cupboards.

SHELL PACKING. *See* Cartridge paper.

SHELL PAPER. *See* Cartridge Paper.

SHELLS, PAPER. *See* Cartridge paper.

SHIPPING CASES, PAPER. Cases, cartons or shipping containers made of solid fiber boxboard or corrugated boxboard; used for shipping merchandise.

SHIRT BOARD. Chip or newsboard; used by laundries to place in shirts to keep ironed shirts protected from wrinkles. *See* Laundry boards.

SHIRT PROTECTORS. Shirt board, with a sheet of glassine pasted to the edges; used as an enclosure for laundered shirts as protection.

SHOE BOARD. Hard fiber board, or highly compressed pulpboard, made of wood pulp and leather clippings; used in the construction of soles and heels as a substitute for leather.

SHOE COUNTERS. *See* Shoe board.

SHOPPING BAG, PAPER. A paper bag, made of strong, heavy rope or kraft wrapping and having a handle attached for convenience in shopping. *See* Carry bag.

SHOWCARD BOARD. A cardboard, made of over-issue news and colored; lined on one side with a book paper and coated one side; used for window and counter display signs.

SIGN BOARD. A heavy weight card board; made of white or cream colored sulphite or white rope; used for printing or lithographing signs; generally used outdoors on trees or barns at cross-roads, etc.

SILHOUETTE PAPER. A black paper of cover stock; used for cutting silhouettes.

SILK BOARD. A stiff heavy chip or binders board; used as a substitute for wood, about which to wrap cotton or silk fabric into a bolt.

SILK WRAPPER. A duplex (buff and white) light weight cardboard or cover paper; used for wrapping bolts of silk fabric.

SILVER EXPRESS. Pearl or gray, water-finished sulphite or sulphate wrapper; used for the same purposes as ordinary express or drab express wrapping.

SILVER TISSUE. A white anti-tarnish tissue; made of rags or sulphite; used for wrapping silver.

SINGLE-COATED PRINTING PAPER—602. A kind of printing paper, which has a light coating of clay on one or both sides; used for screen cuts not the highest degree of fineness.

SINGLE-FACED CORRUGATED BOARD. A corrugated straw board, faced on one side only with chipboard or bogus wrapping; used for protection of glass ware and other packing purposes.

SINGLE FEATHER EDGE BOARD. A board, having but one feather edge; other edge of the same thickness as body of board.

SINGLE MANILA-LINED BOARD. A boxboard, with chip base (made of mixed papers) with a manila liner made of manila clippings; used for folding cartons, butter and lard trays or plates, signs, etc.

SINGLE MANILA-LINED NEWSBOARD. Manila board, lined with news back, clay coated on manila side in white and colors.

SINGLE NEWS VAT-LINED CHIPBOARD. A chipboard, vat news lined on one side only.

SINGLE-THICK COVER. A cover paper of a single thickness of paper, not pasted.

SINGLE WHITE VAT-LINED CHIPBOARD. A chipboard, vat-lined on one side only, with pulp of white shavings.

SIZED AND SUPERCALENDERED. S. & Sc.). *See* Supercalendered.

SIZING. A term applied to the resisting qualities of paper when ink or water is used; sizing quality is produced by the addition of rosin or other similar materials to the beater, or by tub-sizing with glue or starch.

SKETCHING PAPER. A very rough, white or manila writing paper for rough sketches; seldom of permanent value.

SKYTOGEN. *See* Artificial leather.

SLACK-SIZED. A term applied to paper containing less than the

usual amount of sizing, depending upon the uses of the paper; not generally applied to waterleaf sheet.

SLATES, PAPER. Thin paper or cardboard coated with a black composition, used as a substitute for slates in schools.

SLATERS' PAPER. A tarred felt or sized sheathing used under slates in the roofing of buildings.

SLIP SHEETS. A term used to designate a paper place between the faces of engraved or printed sheets to prevent smearing or offsetting; generally a sulphate sheet on account of the wearing quality.

SLITTING PAPER. A term applied to paper in jumbo rolls and rolls of large diameter and in various widths; used for slitting or cutting down to smaller size rolls.

S. M. P. L. CHIP. Single manila print lined chipboard; made of mixed paper or chip base, with a liner of printed manila clippings; used for cheap folding cartons, butter and lard trays that are paraffined, etc.

SMUT SHEET. *See* Slip sheet.

SOAP WRAPPERS. Manila, water-finished fiber or waxed paper; used for wrapping individual bars or cakes of soap; when used without treatment, paper must be free from mechanical pulp to prevent discoloration by the soap.

SODA PULP. Broadleaf wood (poplar, gum, basswood, etc.) cooked by the soda process; usually bleached; a short fibered bulky pulp, used in blottings, book, cover and writing papers.

SOLID BOARDS—12. A group of boards that are made of one grade of beater-prepared stock in one process or operation.

SOLID BRISTOL—311, 321. A term applied to index or mill bristols which are made of homogeneous stock in one operation.

SOLID CARDBOARD. A term applied to any cardboard that is made in one operation on the multi-cylinder papermachine.

SOLID FELT. *See* Deadening felt.

SOLID JUTE BOARD. A board, made entirely of jute stock, without liner or filler.

SOUFFLE CUPS. Small cups made of white sulphite writing paper; cut or embossed with fancy designs; used for serving small portions of foods or sweets.

SPECIALTIES. (a) Converted paper articles, not commonly used; as distinguished from the standard uses;

(b) Grades of paper, made in small runs, of special colors, etc.

SPINNING PARCHMENT. A specially treated parchment paper of lightweight, usually red or pink in color; used to make small rolls about one inch wide for use in connection with the French system of mule spinning of worsted goods.

SPIRAL TUBES. Generally made of straw or chipboard; used for mailing purposes. *See* Mailing tubes.

SPOOLS, PAPER. *See* Cores.

SPOONS, PAPER. A spoon-shaped utencil, made of mechanical pulp, run on a wet machine; the pulp board is cut and molded into the proper shape.

SPUTUM CUPS. Small cups made of chip or combination board; used for sanitary purposes at bedside of invalids.

SQUARED. *See* Trimmed.

STANDARD NEWS PRINT—514. A kind of machine-finished news print, made from chemical and mechanical wood pulp, the latter largely predominating, chiefly used for the printing of newspapers; usually of a weight approximating 32 pounds to each 500 sheets, 24 by 36 inches, but sometimes several pounds heavier. *See* news print.

STARCH PAPER. An absorbent paper, treated with starch; used as an indicator paper in chemical laboratories for the presence of traces of free iodine.

STEAM-DRIED BINDERS BOARD. A term referring to binders board that has been made on a multi-cylinder machine and dried on steam-heated cylinders, as contrasted with air-dried board that is made on a wet machine and air-dried.

STEAM FINISH. A finish obtained by means of a steam spray on the machine calenders or on the supercalender.

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STREAMERS, PAPER. White and colored tissue paper, cut to narrow width rolls for hand use; used principally at carnivals or for decorative purposes.

STEEL PLATE PAPER. A high grade paper of exceptional uniform surface used for steel plate engravings.

STENCIL BOARD. A water-finished, cylinder-made sulphate board; used for making stencils for shipping purposes.

STENCIL PAPER. A paper, used for cyclostyle, mimeograph or other duplicating machines; made by impregnating strong tissue paper with paraffin or other suitable materials.

STENOTYPE PAPER. Book paper, in small rolls or folds, used on stenotype machines.

STEREOTYPING TISSUE—714. A kind of extra strong tissue, made of rags or sulphite; used as a facing in the production of matrix mats for printing purposes.

STIFFENER. A stout sheet, usually a board, placed in envelopes to protect the enclosure from creasing or crushing.

STOCK SIZES. Common sizes, usually carried by producers, distributors or consumers; sizes that are standard and which are reordered from time to time.

STRAWBOARD—104-128. A term referring to a kind of cheap, coarse board, made on a multi-cylinder machine from incompletely cooked straw; may be combination or solid.

(a) Combination strawboard is a board, having a straw base or center and lined on one or both sides with a higher grade of stock and possessing a smoother surface.

(b) Solid strawboard is a board made entirely from straw pulp.

STRAWBOARD NINE POINT. *See* Nine point strawboard.

STRAW WRAPPING—86. A kind of cheap coarse wrapping paper, made of wheat or rye straw; used by packers and butchers for wrapping meat and for lining wagons in which meat is delivered.

STRING-INSERTED WATERPROOF. A built-up, heavy wrapping paper, consisting of two sheets of kraft or manila paper, with coating of asphaltum in center and with cotton or jute string inserted in the center coating, spaced about three-eighths to one-half inch apart.

SUBSTANCES. The weight of a sheet of book or writing paper; book paper weights are on basis of ream 25 by 38 inches, while writings are on basis of 17 by 22 inches; proposed substance is on a basis of ream 25 by 40 (1000 square inches) for all classes of paper.

SUIT BOARD. *See* Suitcase board.

SUIT BOXBOARD. A combination board, of chip base with jute liners, possessing strength and rigidity.

SUITCASE BOARD. Pasted chipboard, oak-grained on one side and reverse side lined with imitation leather paper, used for making suit cases and sample cases.

SULPHATE PAPER. Paper made wholly or principally of sulphate pulp. *See* Kraft paper.

SULPHATE PULP. *See* Kraft pulp.

SULPHATE WRAPPING. A brown wrapping paper made wholly of sulphate pulp.

SULPHITE BAG PAPER. Bag paper, composed wholly or principally of sulphite pulp, either white or manila color.

SULPHITE BOARD. A pulpboard, made entirely of sulphite pulp.

SULPHITE BOND. Paper of the bond type, made from wood fibers, the chief component being bleached sulphite pulp.

SULPHITE MANILA. A manila wrapping paper, made wholly or principally of sulphite pulp, but colored to resemble manila.

SULPHITE PAPER. Paper made wholly or in large part of sulphite pulp.

SULPHITE PULP. Wood pulp produced by a chemical acid process using a mixture of sulphurous acid and lime; coniferous woods, such as spruce, hemlock, fir, etc., generally used in this process; gives a long and strong wood fiber.

SUNDAE DISHES. Light weight pulpboard, or cheap ledger paper, formed into saucer or cup shape, for serving ice cream products.

(*To be continued*)

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

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THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

HOW AND TO WHAT EXTENT SHOULD DETAILED COST INFORMATION BE GIVEN TO DEPARTMENT HEADS?*

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"How and to What Extent Should Detailed Cost Information Be Given to Department Heads?" is a question of vital importance to present-day manufacturing organizations. It immediately raises the issue as to the need for departmentization in industry, for the purpose of better delegating financial and operating responsibilities to department heads, particularly heads of merchandising departments and foremen of plant departments.

Irrespective of the type of organization, it is fundamental that the management of industrial concerns consist of three general functions: (1) Merchandising, that is, buying and selling; (2) Operating, that is, manufacturing and distribution, and (3) Financing.

Naturally, all of us will agree these are the three principal functions in any business, and that its success depends on the effective management of all of them.

Of course, it is desirable in all concerns to have merchandising executives who exercise supervision over the combined buying and selling operations. The buying and selling must be tied up and controlled from a broad and financial point of view.

The buying organization should be guided by costs which will tell them what they can afford to pay for materials and supplies. The selling department heads should be informed of their actual and total costs and results, so they may intelligently meet competition and properly handle their business. Operating is also a distinct function of the business, and heads or foremen of these departments should be regularly supplied with adequate cost information.

Why Departmentization Is Needed

In other words, in most manufacturing organizations there is a need for proper departmentization, for the purpose of securing proper delegation of financial and operating responsibilities, so each department head is placed in the position of a business man in a small business, who does his own merchandising, operating and financing.

In many industrial organizations, departmentization is necessary because of the large variety of operations, the kinds of products handled, the various bases on which expenses should be distributed, and the cost problems encountered. Where an organization handles several lines of products, and may even engage in entirely distinct and competitive industries, it is essential that its accounting procedure, cost finding and departmentization should recognize the requirements of each line of business, and that each department should be accounted for on its own basis in the manner best fitting its operations and transactions.

This is clearly evidenced in our own industry, in which there is highly specialized departmentization, and in which all three of the fundamental types of cost finding methods are used, i. e.:

(1) Ordinary, such as job or process cost, wherein to a known amount of material is added a definite amount of labor and expenses, the sum total of which is the total cost.

(2) Major and by-product cost, which involves the taking apart, or breaking down of some materials of known value, into several or many parts of which one is the major product and the others by-products. This is the method of figuring cattle costs in the packing industry, the same method applying to other industries, such as petroleum, the production of many farm products, etc.

(3) Joint product cost, pertaining to operations which are the breaking up of something of known cost into several or many parts, none of which may be termed the major product. This method of cost finding is used in tobacco, glue, cotton seed oil, the hog business in the packing industry, etc.

To illustrate the necessity for departmentization and the different types of cost finding in our industry and business, we find that some plants handle only a cattle, calf and sheep business. Others may do only a hog business. Some will handle all classes of live stock. Some plants do not process by-products to any extent, but dispose of them raw, or in lesser stages of manufacture, while others process their products to various degrees. Some plants do not engage in allied industries, while others may have extensive operations in separate competitive businesses, such as fertilizer, glue, soap, etc.

System Must Be Appropriate

The method of handling the business, in each case, and the accounting therefor, requires careful and logical departmentization, appropriate to the particular plant and its activities. Each department, or activity, meets the competition of other firms engaged in that particular line of business. In reality, each department is a separate business, using its own capital, handling its own products, incurring its own expenses and being held responsible for its own final results, in competition with similar businesses. It is necessary, therefore, that each of these separate departments, or competitive businesses, be handled, operated and accounted for on its own independent commercial basis.

Operating and accounting for departments as separate business units requires that each carry its own investment, inventories, plant

*From Year Book, 1923, National Association of Cost Accountants.

and equipment, etc.; that each should be charged for its materials at full cost, or value if received on transfer; and be charged for all factory and general costs and expenses; and on the other hand that each department should receive credit for its sales, or transfers of product, at full sales or market value. Naturally, it follows that the departmental statement of each department is a combined financial and operating report of the department for each period.

Now, in any industry in which this situation prevails, two parties are directly and virtually interested in these statements, and the figures they contain—the operating man, who is directly in charge of the plant department and the selling department head, who is directly responsible for the merchandising transactions. Indirectly, the plant manager, superintendent, buyers, general executives, and others are interested in these figures. It should be recognized, however, that we are now looking at this question from a departmental standpoint, and assume that general executives will be fully supplied with statistics and information.

Let us now consider the cost information to be submitted to these three classes of department heads:

(1) Costs for use of those who handle buying.
(2) Costs for plant operating department heads.
(3) Costs for selling department heads.

To get the best results from a buying standpoint, it is necessary to supply the buying organization promptly and regularly with cost information indicating what the selling prices of finished products will permit of paying for raw materials. Let us keep our economic hats on straight. The prices, at which goods will sell necessarily limit the prices which can be paid for materials and supplies.

Taking Statistics As a Guide

Statistics on the cost of manufacture and operating efficiency are the means of guiding plant operations and maintaining proper standards of quality and efficiency. Do not overlook the point that competition is met in every detail of plant operations and costs.

Merchandising men, of course, must have costs, if they are to be in a position to handle their transactions intelligently and profitably. They are interested in all elements entering into costs, and should have constantly at hand summary information showing final costs, compared with their selling prices, indicating to them the margins of final net profits their daily transactions are showing.

The methods by which detailed and departmental cost information may be supplied to the departments, or employees in charge of, and responsible for, the various functional activities of an industry, vary, depending on the nature of the operations, the kinds of products handled, and the particular information required in each case.

As already pointed out, different types of cost information are needed by those who are responsible for the proper administration of the buying, production and selling functions of a business. Furthermore, the kind of cost information needed by each varies in different industries, and in different businesses within a given organization. In a broad sense, however, granting these specific kinds of cost are desirable, the primary purposes of all costs are first, to assist in obtaining efficient management of a business in competition with other similar businesses; and, secondly, to aid in securing the best possible final net results on the capital employed.

But, important as it is to have correct cost figures, they are of value in the administration of any business only in so far as use is made of them. The point is, that in every department, and in every activity of any business, it is the specific and direct application or use made of cost data that is of value, which must be done in the light of other factors affecting the business, such as the supply and availability of raw materials, the demand for the manufactured products, the operating, merchandising, and financial facilities of the company, requirements in meeting competition, seasonal product, and general business changes, etc.

Uses of Cost Information

To illustrate: In our own industry and business the methods and scope of supplying cost information and the uses made of it are somewhat as follows:

(1) General executives of the business are informed of and make use of merchandising, operating and financial costs; in fact, all costs relating to the business as a whole.

(2) Merchandising department heads receive and use all costs pertaining to their departments.

(3) The buying staff uses cost information indicating what the selling prices of finished products will permit of paying for raw materials. They are interested in knowing the quantity and kinds of finished products demanded by the trade, stocks on hand, live stock, receipts, etc. Live animals are usually purchased by quality and weight, and dressed costs and yields are usually determined by lots as purchased. The dressed costs, yields, and current selling prices prevailing, compared with the live costs, indicate what the buyers can afford to pay for live animals.

(4) Operating men, such as superintendents, division superintendents and foremen each receive and use the kind of cost information which indicates the efficiency obtained in handling the operations for which they are held responsible. A superintendent uses cost figures and statistics covering total plant production. Each division superintendent is similarly supplied and uses production figures and statistics applying to his particular division of the plant. Foremen of plant departments are furnished detailed and total costs of their departmental operations, exclusive of gross and final results; and, by using summary and detailed comparative statements of these costs, they are in a position to intelligently and economically handle their operations.

Of course, it is recognized that the departmental method of accounting is not used in all kinds of industrial organizations, many of which might be able to use it to advantage. As you know, many concerns summarize their production operations; that is, costs of materials, labor, and factory expenses, on cost sheets. Consequently, the identity of the separate elements of cost of goods manufactured is lost in many cases, as is also the opportunity for securing a complete and detailed accounting for the merchandising, operating and financial transactions applying to the particular classes of products. The production cost figures are buried in the cost of goods manufactured, and nowhere is there a general summarization of the combined detailed production, merchandising and financial cost figures.

Two Fundamental Disadvantages

There are at least two fundamental disadvantages of this plan:

(1) General executives and also heads of merchandising and operating departments do not get a connected and comprehensive accounting, from a complete business standpoint, for each class of products handled, or kind of business done. That is, the information is supplied to them on a piecemeal and disconnected basis, thereby practically eliminating the possibility of making complete and satisfactory analyses of the figures and statistics for the purpose of drawing proper conclusions.

(2) It does not permit of adequate distribution of responsibilities to heads of departments, and proper supervision from the standpoint of the general executive management.

Granting that it is desirable to give most department heads full and complete information covering detailed and departmental costs and financial figures, it is necessary, first of all, to educate them as to the basis on which these figures are determined, together with their meaning, the system used in accounting for the business, how to analyze the figures, and, most important of all, how to get direct action which will correct errors and produce improved results. In the same way that a balance sheet, or operating statement, means very little to an inexperienced or untrained accountant, so also does the departmental statement, or any statement of costs mean but little, if anything, to an untrained department head or

forearm. This emphasizes the need for organized training being given, particularly to foremen, so they will appreciate and make use of the information given to them.

In conclusion, it should be clearly understood:

(1) That it is the responsibility of the accountant to deliver adequate and proper financial and cost information to executives, department heads, or those who are responsible for the various functions of a business.

(2) That it is the responsibility of the executives and department heads receiving these figures and statistics to understand and make proper use of them.

In final analysis, this means that both parties should fully recognize and understand the problems and services of the other, and that there should be hearty co-operation on the part of both parties toward the securement of the best possible final results.

Discussion

AMBROSE DOWNS, THE CARBORUNDUM COMPANY, NIAGARA FALLS, N. Y.: What I have to say is applicable to the subject matter of both speakers. Mr. Lamb pointed out the value of looking at things from a new angle. Now, it requires a bit of imagination to do that, and imagination is something accountants seldom seem to have. Mr. Lamb has it; I have it; but does anybody else here have it? I am going to look at the subject now from another new angle, the angle of getting away from dollars and cents in our reports to our foremen, at least as far as possible. There is a fluctuation in costs due to fluctuations in both the labor rate we pay from time to time and the amount of money we pay per unit for the expense materials consumed under the foreman's supervision, for which the foreman is in no wise responsible. He is, or should be, interested in QUANTITIES rather than PRICES—in hours, tons, pounds, gallons, units of product, etc., rather than their cost in dollars and cents at any particular time. For instance, the total money spent for labor means nothing to him. If we spent $4,000 for labor last month and $5,000 this month, the labor cost per unit of product remains unchanged if there has been a 25 per cent increase in production, and the expenditure per unit of product is the only significant thing. But money expenditures, even when expressed per unit of product, do not tell the foreman what he should know—the relative efficiency of his department from period to period. The increase or decrease in the money expenditure per unit of product may be due wholly or in part to fluctuations in the labor rate.

For the past year my tendency has been to get away from putting dollars and cents before the foremen wherever possible. In such cases as repairs to equipment we use money cost; we have no other common denominator to express the various expenses under this head. But in the majority of cases we have found it possible to eliminate money from our foremen's reports with very satisfactory results. For instance, burning in kilns: here we express labor in man-hours per ton of product burned, coal in tons of coal per ton of product burned, and kiln furniture in pounds of kiln furniture per ton of product burned. An hour is always an hour whether you pay fifty cents or a dollar for it, and a ton and a pound are always a ton and a pound.

Some Pertinent Questions

C. E. O'NEIL, DOMESTIC COKE CORPN., FAIRMONT, W. VA.: I would like to ask Mr. Downs or Mr. Lamb what they have done to be able to arouse the necessary enthusiasm on the part of the foremen? It has been my experience that while a foreman might be a high type of man in his particular line, you can never get him to work on the figures which you give him, and when I have given him a statement he would walk away and not read it in 90 per cent of the cases.

MR. LAMB: Well, I think it is like the proverbial drop of water on the stone; I think it is a case of constantly keeping after the foremen. If something is wrong this month and it is not corrected next month, go ahead and find out why it is not corrected. Finally the foreman gets to the point where he appreciates that you mean something and begins to hew to the line. As I stated in answer to some other question, there has not been anything done in an educational way so far as getting foremen together and conducting a sort of kindergarten to teach them the make-up of statements. The responsibility for educating foremen rests largely upon the management of the plant. If the management believes in statements and believes that they are vital, you can rest assured the foremen will see that they are carried down to the point where, if the expense is larger than it should be, it is looked after. And if the manager and superintendent are of the right type, the foreman will finally get it into his system that statements are important. If, after a time, the manager finds that the foreman will not co-operate, the thing to do is to give him another job.

PRESIDENT JORDAN: Mr. Pelton, what have you done from an educational standpoint?

MR. PELTON: In our organization, as I said in my paper, we have all kinds of cost problems. Different kinds of business have different requirements in figuring cost. The departmental statement, irrespective of the method used in figuring detail costs, is a summarization of materials, labor, expenses, capital employed and comparative statistics. In other words, from a financial standpoint it shows the capital employed in the department, such as accounts, inventories, land, buildings, machinery and equipment, etc. It also shows the materials going into cost, supplies, labor and other expenses of a direct and indirect nature; that is, the expenses for which the foreman is held fully responsible, and those for which he is held partially responsible. But all expenses are shown, including fixed charges, selling, and general administrative expenses as well as interest on total capital employed.

How Foreman Uses Figures

These figures are not looked at by the foreman merely from the dollar and cents standpoint, but primarily from the unit cost standpoint applicable to the products of the department.

Now in our own organization, for a three-year period, we have been giving an organized constructive, and complete—at least we hope it is—course of training in accounting and economics to our accountants and others throughout the entire organization, so they may better understand the requirements of business in general from financial, operating, and merchandising standpoints, and also be better able to fit in with our business requirements. We have also worked out a complete system of education for foremen. Each one, particularly those in charge of operating departments, is supplied with booklets that explain the bases on which their departmental figures are determined. Foremen usually have the impression, and naturally so, that labor and supplies are about the only things that are of any particular importance to them. But they overlook the fact that the balance of expenses and production costs, in most cases, equal if not exceed, either the labor or supply costs. A foreman to intelligently reduce the expenses of his department should first of all know how these expenses are determined and distributed. Casualty insurance, for example, is charged up against a department on the basis of labor cost, using the rates which apply. If he knows this, he is aware that if he keeps his labor cost down, it automatically reduces his casualty expense, and that he is accomplishing something of value. If he knows his inventory figure serves as the basis for distribution of various expenses to his department, he has a very definite understanding that it is necessary for him to take proper inventories, and that it is necessary for him to be accurate and exact in the requirements that he sets for the employees in his department who take inventories. Similarly, if he knows how the various other items of expense are determined and distributed and charged against him, he is in a position to know what remedies may be applied.

In a majority of cases we have found this kind of information does not have to be sold to the foremen. They are anxious for it.

Their argument is, "Why should we be working in the dark? We want the information; we are glad to get it."

PRESIDENT JORDAN: Do you know, to me that answer is a real eye opener. It gives me a still broader vision of what this association can do in the future. We have heard a whole lot about government investigations; we have seen our newspapers full of all kinds of everlasting pecking away at the packers and their methods. It seems to me a rather ironical retribution that these most advanced standards of education of the accountants, of the foremen wanting the costs to keep costs down, and everything of that sort has come from a representative of one of the big packing houses of the country.

MR. PELTON: I recommend, not that I assume to be an advance agent for the book, the reading of "Financial and Operating Ratios in Management," by J. H. Bliss, a member of this association. He has made an extensive survey of published figures applying to business for the past eight or ten years. The figures show that if the profits of all the business and industrial institutions of this country are combined and averaged for the eight-year period, 1914-1921, and are then compared with the invested capital on the average, the final net profits are eight and a fraction per cent; and that in our own industry, particularly in the larger organizations, it is only a fraction over six per cent; and that the margin of profit at the present time is narrow and probably will continue to be so. Mr. Bliss goes on to say that it is only because of rapid merchandising and turnover of each and every dollar used in the business that it is possible to make a dollar earn a fair or even reasonable return on the capital employed or invested.

T. J. BURKE, SECRETARY OF THE COST ASSOCIATION OF THE PAPER INDUSTRY, NEW YORK: It seems to me, that first of all it is necessary to limit the authority and responsibility of the various departmental heads throughout the plant; and then arrange for the statements given them to contain the information or costs according to the responsibility placed on them. Is not that your opinion of how the matter finally winds up? Mr. Pelton has mentioned that he gives foremen both the capital employed and expense figures.

PRESIDENT JORDAN: Understand that Mr. Pelton is talking about departments of enormous size which are in many cases as large as about five other businesses that we might mention. A foreman of one department has in his department a whole business in itself, and a dozen or more subsidiary or minor departments in each major department.

MR. PELTON: There are two fundamental reasons why a foreman should be given figures of capital employed and expenses. First, he should know his financial figures, his capital employed, so he may know the money he is using to conduct his business, that is, the amount used, and how it is used. Secondly, he should know the basis on which expenses are determined and charged against his department. In other words, he should know both the financial and expense figures, and the basis on which expenses are determined and charged against him, so he may know how to make improvements, just as he would expect to do if it were his own business.

C. H. SCOVELL, BOSTON: I would like to have you draw out of this audience some discussion on this point. How much of the information given to the foremen, of a humble kind—I mean, the men who are just a little more than straw bosses and who are running a bunch of 50 to 100 men—is in the way of inspiration, and how much of it is in the way of business? It can be both, and possibly both in the same plant and to the same man.

Explains Plant Budget

R. W. DARNELL, RITTER DENTAL MANUFACTURING COMPANY, ROCHESTER, N. Y.: We believe that the only men in the organization who can actually reduce expenses are those men who are right on the job in the factory, supervising their little corps of men, and who daily come in contact with all the elements of expense.

There is nothing that the superintendent, factory manager, or general manager can do to reduce these expenses, because all they see is the situation as a whole, and really have nothing to do with the actual spending of the money.

With this in mind, we have established a plant budget for those items of expense which can be controlled by the departmental foremen. This includes indirect labor, factory supplies and scrap, and we have purposely left out such items as depreciation, insurance and taxes, due to the fact that they are not controlled by the foremen, and if incorporated in the budget would simply tend to confuse those operating under the budget.

These three elements of expense are closely estimated on a monthly basis and then divided by the number of working days in the month, which, in effect, reduces it to a daily budget plan. By the use of one or two clerks, the actual expenditures are compiled from day to day, and shown in comparison to the budget figure. This information is shown in chart form by departments in such a way, that the departmental foreman can see from day to day exactly how his expense is running in comparison to his budget. While there is no doubt that this helps a grea deal in reducing expenses, there is no one but who can do better if there is some incentive for him to do so. This applies not only to departmental foremen, but to all of us, because while we may think that we are doing all we possibly can to reduce expenses and operate our departments economically, we all find that we can do more, if there is some "money" incentive to spur us on.

With this in mind, we have set up a bonus scheme in connection with our budget. We do not pay this budget on a monthly basis because of the fluctuations in expense from month to month, but pay it on a yearly expense instead. Neither do we pay the individual foreman on the showing of his own department, due to the fact that there are so many inter-department charges which would lead to friction among the department heads in deciding which department should stand specific charges. Instead, we pay the bonus on the showing of the plant as a whole at the end of the year. For instance, if the total expense at the end of the year is 10 per cent below the budget figure, we pay each foreman participating in the bonus 10 per cent of his yearly salary, as a bonus. This may appear as though we are paying out everything we have saved, but such is not the case, inasmuch as the salaries of the foremen, upon which we are paying the bonus, constitutes only about 30 per cent of the entire expense.

We have found that this arrangement creates additional enthusiasm on the part of the foremen, to the point of where it is a matter of good business on the part of the manufacturer to operate such a plan.

PRESIDENT JORDAN: I think Mr. Scovell might have asked his question in perhaps three parts. One is the "fear of God method"; a second is the method of getting the real and enthusiastic co-operation of foremen by appealing to their sporting instinct; and the third is the buying method. Is there some one here who has made a specialty of the use of figures appealing to the sporting instinct of the men, to get their real interest without remuneration and without fear?

C. B. LAWRENCE, RITTER DENTAL MANUFACTURING COMPANY, ROCHESTER, N. Y.: Adding further to Mr. Darnell's remarks, and answering President Jordan's question, acting as a connecting link between the factory and office it is my duty to settle any disputes among the foremen, and to properly guide them in their efforts toward reducing the expense of their departments.

Discuss Budget with Foremen

We have 61 foremen, and three or four days prior to the close of the budget period the final monthly budget report is sent out to each foreman. As a further incentive or stimulant to create energy and enthusiasm from that which is brought out through the money incentive, we call these foremen together directly after the factory closes once a month, treat them to a good dinner, accompanied with a little music, the expense of which is entirely borne by the company. After the dinner a meeting is held for discussion of the budget. Like all other plans, some departments have made a better showing than others. We have obtained excellent results by having the foremen in charge of these better

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departments explain to the other foremen their methods of obtaining the results. With this method we have both the money incentive and the spirit of wanting to win tied together. The sporting side of this plan is the fact that all foremen are assembled together when the results of each department are displayed and the best showing wins the game.

PRESIDENT JORDAN: I think, then, Mr. Darnell did not go quite far enough, because he gave us the impression that his plan for arousing the interest of foremen is on a purely bonus basis; you take it out of the other class and put it into a real sporting class.

MR. LAWRENCE: Well, we do both.

J. M. SCANLON, HESS BRIGHT MANUFACTURING COMPANY, PHILADELPHIA: The big job of the foreman nowadays is supervision, and by furnishing the foremen with the cost figures of his department it enables them to supervise, so it makes their jobs bigger. That is how we have approached the subject. We sell the foremen on the value of cost figures.

PRESIDENT JORDAN: There is no doubt about what you have said. Is there any one here who is working along the lines of getting results more through "the fear of God" method, as it is called in the plant?

E. R. DE BECHEVET, NEPTUNE METER COMPANY, TARRYTOWN, N. Y.: We have not been giving any bonuses to the foremen, but weekly we give them reports of the amount of stock and the cost of all the repairs and the maintenance in their departments. At the beginning we had to put, practically, the "fear of God" in them before they would pay any attention to the reports. We gave them a complete list of every single repair that is made, itemized by machine and by the job. For the last few months we have not had any trouble getting them to pay attention to the reports; in fact, I have not had the foremen come to my desk and raise hell over the report.

PRESIDENT JORDAN: Is there any one who has gone at this matter from the standpoint that before you were through you had to let somebody go because he would not pay attention, and has that been very general?

H. G. CROCKETT, SCOVELL, WELLINGTON AND COMPANY, N. Y.: I knew of an experience like that some years ago.

PRESIDENT JORDAN: I mean since people were educated.

MR. CROCKETT: One department head had not made a sufficient reduction in his costs, so the president thought, and sent his statement of costs back to him, but he sent the wrong copy, and sent the copy intended for that department to me, which had a notation, "No increase in help unless decrease in total expense."

PRESIDENT JORDAN: I want to try something that I think will be rather interesting on the basis of the papers and the discussion this afternoon. How many—and if there is more than one man from a firm here, just one raise his hand—how many are actually using cost figures? And when we say cost figures we do not mean cost of product, but department cost and figures that show what a department is doing. How many are actually with companies using cost figures in that way? (A large number raised their hands). That is fine. Last year there would not have been so many. How many want to give cost figures to foremen but cannot because the management is not sold on this practice? (Only a few raised their hands).

Waterproof Case Linings in Export Packing

Waterproofed case lining papers play an important part in export shipping, protecting valuable merchandise against moisture, mold, odors, salt water, and other hazards brought about by stowage in the holds of ships or by the varying climatic changes in foreign countries. There are few commodities that water does not injure. Textiles are discolored and decayed, metals and machinery are rusted, foodstuffs are made unpalatable and chemicals are dissolved or changed in their composition. Even canned goods may be made unsalable by the discoloration or loosening of labels. It is therefore necessary that the majority of export cases be lined with a tested paper that possesses the requisite waterproof qualities.

In order to place in the hands of exporters data concerning the best types of case lining papers, the Bureau of Standards, through the co-operation of the Paper Division of the Bureau of Foreign and Domestic Commerce, has submitted the following.

Tentative specifications for waterproof case lining paper:

Composition. The paper shall be made of two layers or sheets of 100 per cent sulfate kraft paper, cemented together with a layer of asphalt.

Weight. 25 by 40, 500, 120.5 pounds basis (24 by 36, 480, 100 pounds). (A tolerance of 10 per cent will be allowed on weight.)

Bursting strength. Average of 10 tests shall be not less than 60 points.

Tensile strength. Average of 10 tests in both directions of the sheet, shall be not less than 9 kilograms.

Water resistance. Time of penetration of water shall be not less than one hour.

Methods of Testing:

The bursting strength shall be determined with a machine by which the paper is firmly clamped against a rubber diaphragm, through which the pressure is applied to a circular area of the paper measuring one square inch.

The tensile test shall be made with a machine of 50 kilogram capacity, set with a distance of 90 millimeters between the clamps at the beginning of the test and with the pulling clamp moving at a speed of 3 inches per minute. The test strips shall be 15 millimeters in width.

The water resistance shall be determined by a modification of the Stockigt method. Samples shall be cut approximately 2½ inches square and molded into cup shape. This may be done conveniently by using a glass-stoppered bottle having a neck of 1½ inches inside diameter, depressing the paper into the neck of the bottle with the stopper. The cup shall be floated in a 2 per cent ammonium thiocyanate solution and four drops of 1 per cent ferric chloride solution placed immediately at different points inside the cup, near the centre of the bottom. The time of penetration shall be the interval from the time the cups are placed in the thiocyanate solution, to the average time that all four drops of the ferric chloride show a pink coloration due to admixture of the two solutions. The time of penetration reported shall be the average time for at least four different cups.

Note:—The specifications given are based largely on results of investigative work on various waterproof packing papers being conducted by the Bureau of Standards. As the investigation has not been completed, the Bureau recommends that these specifications be adopted tentatively as possible modifications may be found necessary when more complete information is available.

The weight specified is somewhat higher than in the Army specifications, but a weight tolerance of 10 per cent is included which will permit papers of 90 pounds. The usual tolerance is 5 per cent, but a higher tolerance was believed to be desirable, as the weight for such papers is difficult to control.

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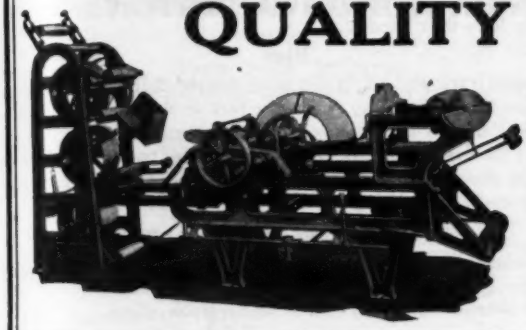

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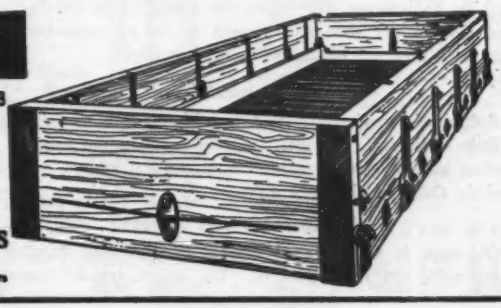

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, FEBRUARY 27, 1924.

Probably the chief subject of conversation in many of the local paper offices is just what effect the strike in Norway is going to have upon the domestic market for pulp and paper. The general opinion seems to be that it will be beneficial since the grades that have had to come into close competition with the Scandinavian imports have been conspicuously uncertain for several months past.

Pulp manufacturers in particular were rejoicing in the confusion of one of their competitors who has been causing them a good deal of discomfort. Manufacturers of kraft paper seem to think that the strike is not going to hurt them any either.

Some anxiety is felt, however, among the wiser heads about the ultimate effect. It is feared that prices may go even lower when the Norwegian mills are running again and make strenuous efforts to regain their lost ground.

There seems to be little doubt that the present strike will be of short duration according to the few sources of information at hand on the matter. It is reported that the strike is affecting many industries in Norway and it is unlikely that the people will permit it to continue.

It is doubtful if news print will be in any way affected. As it stands today it is selling extremely well although some of the other grades are beginning to catch up with it. Spot news has been moving particularly well in rolls and sheet together with side runs are not far behind. There is every reason to believe that there will be plenty of news print paper for all during the coming weeks with the demand continuing strong.

Fine papers are still going along at about the same rate that they have been. These grades are practically the most stable on the market most of the time and the present is no exception. Prices seem to be fairly firm in all of the various grades.

Book paper is also moving at a satisfactory rate according to the manufacturers and jobbers. The fact that most of the magazines seem to be gaining both in circulation and in advertising is doing much to augment business in this line and to keep the demand and prices firm.

Kraft paper is also showing more activity in the domestic lines with the competition from Scandinavia easing off somewhat. Prices are showing a much more solid underpinning than they have for some time and it is apparent that the product is due to improve some more before many more days pass.

Manila and fiber papers are moving along at just about the same rate as they have been for the past few weeks with no radical changes in either one direction or the other. Dealers say that they are doing a fairly satisfactory business.

Board is also becoming a trifle brisker and it is said that there is a better undertone in the market. Prices remain about the same with the demand apparently increasing.

Mechanical Pulp

Mechanical pulp is still in fairly good demand with the price stable after its alterations of a few weeks ago. There seems to be nothing to indicate that there are going to be further reductions and dealers say that they expect to do an even better business than they now are within the next few weeks.

Chemical Pulp

Sulphite is moving a little better in the open market than it was a little while ago. Several large deals during the week in the open market have tended to steady things up and manufacturers are optimistic about the immediate future.

Old Rope and Bagging

Old rope is still in pretty good demand with bagging keeping along neck and neck with it. The prices remain just about the same with no evidence of any great change due within the immediate future. Dealers are doing a good business and packers apparently have their hands full.

Rags

Imported rags are still in the good demand that they have been for some time. This may be due in part to the fact that the demand in Europe is said to have increased somewhat thus cutting off some of the supply that has been coming to this country. Domestic rags are also in frequent call and the dealers say that business is keeping up in a gratifying manner.

Waste Paper

The higher grades of waste paper are still in good demand with the lower grades coming along nearly as fast. Dealing in the open market is brisk with many takers for favorable offers.

Vermont Power Developments

[FROM OUR REGULAR CORRESPONDENT.]

WHITINGHAM, Vt., February 26, 1924.—The big $10,000,000 power development on the river here has been completed with the plugging of the diversion tunnel cut 1,500 feet through solid rock which has taken care of the river flow since the beginning of construction on June 1, 1922. When the spring rains come and snow melts in the drainage area there will be formed a lake 10 miles long and holding 38 billions of gallons of water. The dam is the largest earth dam in the world, it is said, being 200 feet high. The cost of the dam flowage rights, powerhouse, etc., was about $10,000,000. It will supply electric power to many New England industries.

Oglesby Co. Improvements

[FROM OUR REGULAR CORRESPONDENT.]

HAMILTON, Ohio, February 26, 1924.—Construction of a $100,000 addition to the plant of the W. B. Oglesby Paper Company mill at Middletown will be begun within a few weeks. The contract was awarded to the F. K. Vaughn Building Company of Hamilton, A. J. Aull, president of the company announced.

The new addition will house the first bleach-making apparatus ever installed in Middletown. There also will be several new beaters and rotary machines. The machinery has been ordered and it is expected that the new unit will be in operation in a few months.

Paper Man Weds in Holyoke

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., February 26, 1924.—Leonard Franklin Johnson, manager of the Minneapolis office of the Eaton, Crane and Pike Paper Company, was married last week at the St. Paul's Episcopal church to Miss Bessie Mae Younghans, daughter of Mrs. Jennie M. Younghans of 73 Taylor street, Holyoke. Rev. Franklin Knight officiated and the couple were attended by Miss Bessie G. Learmouth of this city and Raymond C. Abbey of New York City. The bride was for three years secretary of the Red Cross Association in New York.

Discuss Compensation Laws

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., February 26, 1924.—State compensation laws and labor laws in general was the subject presented at the recent session of the Foremen's Club of the Bryant Paper Company. John A. Ross gave the talk, devoting most of his attention to the compensation features. This was followed by a general discussion of points brought out. Following this, adjournment was taken to the auditorium in the administration building, where employees of the company were having a card party. The guests were invited to partake of refreshments.

Market Quotations

Paper Stock Securities

New York Stock Exchange closing quotations February 26, 1924

	BID	ASKED
American Writing Paper Company, pref	2¼	3
International Paper Company, com	36	37
International Paper Company, pref. stamped	64	65
Union Bag & Paper Corporation	59	60

Paper

F. o. b. Mill			
Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	30.00
Superfine	14.00	@	30.00
Tub Sized	10.00	@	15.00
Engine Sized	8.00	@	11.00
News—f. o. b. Mill—			
Rolls, contract	3.75	@	4.00
Rolls, transit	3.75	@	4.25
Sheets	4.25	@	4.50
Side runs	3.50	@	4.15
Book, Cased—f. o. b. Mill—			
S. & S. C.	7.25	@	9.00
M. F.	7.10	@	8.85
Coated and Enamel	9.00	@	14.00
Lithograph	9.00	@	14.00
Tissues—f. o. b. Mill—			
White No. 1	.80	@	.90
White No. 2	.85	@	.95
Colored	1.15	@	2.00
Anti-Tarnish	1.50	@	2.00
Kraft	.95	@	1.15
Manila	.78	@	.85
Kraft—f. o. b. Mill—			
No. 1 Domestic	5.85	@	6.20
No. 2 Domestic	5.15	@	5.75
Imported	4.75	@	5.20
Manila—			
No. 1 Jute	7.50	@	9.00
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.25
No. 2 Wood	4.00	@	4.50
Butchers	4.25	@	4.75
Fibre Papers—			
No. 1 Fibre	5.50	@	5.75
No. 2 Fibre	5.00	@	5.25
Common Bogus	3.50	@	—
S. Screening	3.25	@	3.75
Card Middles	4.00	@	5.00
Boards—per ton—			
News	55.00	@	60.00
Straw	61.00	@	63.00
Chip	50.00	@	55.00
Binders' Boards	70.00	@	75.00
Sgl. Mla. Lt. Chip	65.00	@	75.00
Wood Pulp	70.00	@	75.00
Container	70.00	@	80.00
Sulphate Screenings—			
Coarse	.80	@	.90
Refined	1.75	@	2.00
Ground Wood—			
Screenings	20.00	@	25.00
Glassine—			
Bleached, basis 25 lbs.	12.00	@	15.00
Bleached, basis 20 lbs.	14.00	@	17.00

Mechanical Pulp

(Ex-Dock)			
No. 1 Imported	31.00	@	35.00
(F. o. b. Mill)			
No. 1 Domestic	31.00	@	35.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)			
Sulphite (Imported)—			
Bleached	3.95	@	4.10
Easy Bleaching	2.90	@	3.10
No. 1 strong unbleached	3.05	@	3.15
No. 2 strong unbleached	2.40	@	2.60
No. 1 Kraft	2.85	@	3.05
Sulphate—			
Bleached	3.90	@	4.00
(F. o. b. Pulp Mill)			
Sulphite (Domestic)—			
Bleached	3.90	@	4.20
Easy Bleaching Sulphite	2.90	@	3.05
News Sulphite	2.50	@	2.90
Mitscherlich	2.90	@	3.00
Kraft (Domestic)	2.65	@	2.90
Soda Bleached	4.00	@	4.20

Domestic Rags

New

Prices to Mill, f. o. b. N. Y.			
Shirt Cuttings—			
New White, No. 1	13.00	@	13.50
New White, No. 2	6.25	@	6.75
Silesias, No. 1	7.25	@	7.75
New Unbleached	10.50	@	11.00
Washables	5.26	@	6.15
Fancy	6.25	@	6.75
Blue Overall	7.15	@	8.15
New Blue	5.00	@	5.50
New Black Soft	4.65	@	5.15
New Light Seconds	2.75	@	3.00
O. D. Khaki Cuttings	4.04	@	4.15
Men's Corduroy	3.65	@	4.00
New Canvas	6.40	@	7.00
New Black Mixed	2.50	@	2.75
White, No. 1—			
Repacked	6.25	@	6.75
Miscellaneous	5.50	@	5.75
White, No. 2—			
Repacked	4.00	@	4.25
Miscellaneous	3.50	@	3.65
St. Soiled, White	2.80	@	3.00
Thirds and Blues—			
Repacked	3.00	@	3.25
Miscellaneous	2.35	@	2.45
Black Stockings	3.00	@	3.25
Roofing Rags—			
Cloth Strippings	2.30	@	2.40
No. 1	2.05	@	2.15
No. 2	1.25	@	1.35
No. 3	1.20	@	1.30
No. 4	1.20	@	1.30
No. 5A	1.50	@	1.60

Foreign Rags

New Light Silesias	7.00	@	7.75
Light Flannelettes	8.00	@	8.25
Unbl'chd Cottons	9.00	@	9.50
New White Cuttings	10.00	@	11.50
New Light Oxfords	7.25	@	7.75
New Light Prints	6.75	@	7.25
New Mixed Cuttings	2.50	@	2.75
New Dark Cuttings	2.00	@	2.25
No. 1 White Linens	9.00	@	10.00
No. 2 White Linens	7.00	@	8.00
No. 3 White Linens	6.00	@	6.50
No. 4 White Linens	4.00	@	5.00
Old Extra Light Prints	3.15	@	3.25
Ord. Light Prints	2.75	@	3.00
Med. Light Prints	2.40	@	2.50
Dutch Blue Cotton	3.25	@	3.50
German Blue Cottons	3.00	@	3.20
Ger. Blue Linens	3.00	@	3.25
Checks and Blues	2.00	@	2.15
Dark Cottons	2.00	@	2.10
Shoppery	1.75	@	1.85
French Blues	3.25	@	3.50

Bagging

Prices to Mill F. o. b. N. Y.			
Gunny No. 1—			
Foreign	1.30	@	1.40
Domestic	1.20	@	1.30
Wool, Tares, light	1.30	@	1.40
Wool, Tares, heavy	1.40	@	1.50
Bright Bagging	1.10	@	1.20
Sound Bagging	.90	@	1.00
Manila Rope—			
Foreign	6.25	@	6.50
Domestic	6.50	@	6.75
New Bu. Cut	2.15	@	2.25
Hessian Juts Threads—			
Foreign	2.00	@	2.25
Domestic	2.00	@	2.10

Twines

Cotton—(F. o. b. Mill)—			
No. 1	.30	@	.38
No. 2	.29	@	.31
No. 3	.34	@	.36
India, No. 6 basis—			
Light	.17	@	.18
Dark	.16	@	.17
B. C., 18 basis	.41	@	.42
A. B. Italian, 18 Basis	.51	@	.61
Finished Jute—			
Dark, 18 basis	.29	@	.30
Light, 18 basis	.26	@	.27
Jute Wrapping, 3-6 Ply—			
No. 1	.20	@	.23
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.15	@	.17
Fine Tube Yarn—			
5-ply and larger	.19	@	.21
4-ply	.20	@	.22
3-ply	.20	@	.22
Unfinished India—			
Basis	.16	@	.17
Paper Makers' Twine			
Balls	.09	@	.11
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.15	@	.16
Amer. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.14	@	.16
No. 2 Basis	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

Old Waste Papers

(F. o. b. New York)

Shavings—			
Hard, White, No. 1	4.05	@	4.15
Hard, White, No. 2	3.20	@	3.30
Soft, White, No. 1	3.10	@	3.30
Flat Stock—			
Stitches	1.70	@	1.80
Over Issue Mag.	1.70	@	1.80
Solid Flat Book	1.50	@	1.60
Crumbled No. 1	1.25	@	1.35
Solid Book Ledger	2.15	@	2.25
Ledger Stock	1.90	@	2.05
New B. B. Chips	.65	@	.80
Manilas—			
New Env. Cut	2.45	@	2.55
New Cut No. 1	1.75	@	2.00
Extra No. 1 old	1.30	@	1.40
Print	1.10	@	1.25
Container Board	.90	@	1.00
Bogus Wrapper	.90	@	1.00
Old Krafts Machine compressed bales	2.15	@	2.25
News—			
No. 1 White News	2.15	@	2.25
Strictly Overissue	1.15	@	1.25
Strictly Folded	.85	@	.95
No. 1 Mixed Paper	.65	@	.75
Common Paper	.45	@	.55

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill			
All Rag Bond	35	@	40
No. 1 Rag Bond	30	@	35
No. 2 Rag Bond	14	@	25
Water Marked Sulphite	9	@	12
Sulphite Bond	7½	@	10¼
Sulphite Ledger	9½	@	12
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	5¼	@	7½
No. 1 S. & S. C. Book	6¼	@	7¾
Coated Book	8	@	10
Coated Label	8	@	10
News—Rolls, mill	3¾	@	4½
News—Sheets, mill	4	@	4¼
No. 1 Manila	5	@	6
No. 1 Fibre	5½	@	5¾
No. 22 Manila	4¾	@	5
Butchers' Manila	4½	@	
No. 1 Kraft	6	@	6¼
No. 2 Kraft	5½	@	6
Wood Tag Boards	4½	@	6
Screenings	2¼	@	3
Boards, per ton—			
Plain Chip	$45.00	@	47.50
Solid news	50.00	@	52.50
Manila Line Chip	57.00	@	60.00
Container Lined—			
85 Test	60.00	@	65.00
100 Test	65.00	@	70.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.65	@	3.70
No. 1 Soft Shav.	3.10	@	3.25
No. 1 Mixed	1.25	@	1.35
No. 2 Mixed	1.15	@	1.25
White Envel. Cuttings	3.50	@	3.75
Ledgers and Writings	1.80	@	
Solid Books	1.75	@	
No 1 Books, Light	1.45	@	1.50
Blanks	2.40	@	2.50
Ex. No. 1 Manila	2.35	@	2.45
Manila Envelope Cuttings	2.50	@	2.60
No. 1 Manilas	1.50	@	1.55
Folded News (over issue)	1.25	@	—
Old Newspaper	1.15	@	—
Mixed Papers	1.05	@	1.10
Straw Clippings	1.10	@	1.15
Binders' Clippings	1.10	@	—
Kraft	2.40	@	2.50
New Kraft Cuts	2.65	@	—
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	46.00	@	—
No. 2	44.00	@	—
No. 3	42.00	@	—
No. 4	42.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10	@	.60
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.06	@	.11
Book, S. S. & C.	.08	@	.15
Book, Coated	.08	@	.15
Coated Lithograph	.10	@	.15
Label	.08	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.10
No. 1 Kraft	—	@	.11
Common Bogus	.02½	@	.03
Straw Board	75.00	@	85.00
News Board	65.00	@	70.00
Chip Board	62.50	@	67.00
Wood Pulp Board. (Carload Lots)	1.25	@	1.50
Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	75.00	@	80.00
Tarred Felts—			
Regular	48.00	@	50.00
Slaters	54.00	@	56.00
Best Tarred, 1-ply (per roll)	1.35	@	1.50
Best Tarred, 2-ply (per roll)	1.00	@	1.15
Best Tarred, 3-ply	1.50	@	1.65

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.25	@	—
Domestic	1.20	@	1.25
Manila Rope	5.00	@	6.00
Sisal Rope	.75	@	.80
Mixed Rope	.75	@	.80
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	.75	@	.80
No. 1, New Lt. Burlap	1.75	@	2.00
New Burlap Cuttings	1.75	@	2.10

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.25	@	4.40
No. 2, Hard White	3.50	@	3.75
No. 1 Soft White	3.25	@	3.50
No. 2 Soft White	2.15	@	2.25

(Continued on page 66)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING FEBRUARY 23, 1924

SUMMARY

News print .....725 rolls, 193 bls.
Printing paper .....230 rolls, 385 bls., 52 cs.
Hangings .....33 bls., 27 cs.
Wall paper .....267 bls.
Filter paper .....20 cs.
Packing paper.....186 bls., 8 cs.
Wrapping paper.....241 pgs., 11 bls.
Kraft paper .....116 rolls, 593 bls.
Drawing paper.....26 cs.
Cigarette paper .....242 cs.
Tissue paper.....20 cs.
Wallboard .....60 crates
Tinfoil paper .....27 cs.
Abrasive paper .....6 cs.
Mi cellaneous paper,
145 cs., 752 bls., 5,531 rolls, 22 bdls.

CIGARETTE PAPER

The Surbrug Co., Suffren, Havre, 23 cs.
P. J. Schweitzer, Valflorita, Marseilles, 26 cs.
Rose & Frank, Vincent, Havre, 173 cs.
Liggett & Myers Tobacco Co., by same, 20 cs.

PAPER HANGINGS

A. C. Dodman, Jr., Inc., Ansonia, Liverpool, 25 cs.
W. H. Lloyd & Co., President Polk, London, 2 cs.
W. H. S. Lloyd & Co., by same, 33 bls.

WALL PAPER

Federal Commission Co., Stockholm, Gothenburg, 7 bls.
National City Bank, Pittsburgh, Hamburg, 260 bls.

WALLBOARD

O. M. Baxter, Inc., Stockholm, Gothenburg, 60 crates.

WRAPPING PAPER

R. F. Hammond, Inc., Stockholm, Gothenburg, 11 bls.
British-American Tobacco Co., Teresa, Trieste, 241 pgs.

PACKING PAPER

M. O'Meara Co., President Harding, Bremen, 186 bls.
Steffens, Jones & Co., Pittsburgh, Hamburg, 8 cs.

KRAFT PAPER

Wilkinson Bros. & Co., Inc., Pittsburgh, Hamburg, 16 rolls.
Wilkinson Bros. & Co., Inc., by same, 593 bls.
Chatham & Phenix National Bank, Stockholm, Gothenburg, 100 rolls.

FILTER PAPER

E. H. Sergeant & Co., Stockholm, Gothenburg, 4 cs.
H. Reeve Angel & Co., Inc., Nevisian, London, 10 cs.
G. Lueders & Co., Suffren, Havre, 6 cs.

TINFOIL PAPER

E. Morgan & Sons, Ansonia, Liverpool, 21 cs.
Meadows, Wye & Co., by same, 6 cs.

TISSUE PAPER

Meadows, Wye & Co., Ansonia, Liverpool, 3 cs.
G. W. Sheldon & Co., by same, 2 cs.
F. C. Strype, Mercian, Liverpool, 15 cs.

DRAWING PAPER

E. Dietzgen & Co., Pittsburgh, Hamburg, 26 cs.

ABRASIVE PAPER

Manning Abrasive Co., Otho, Buenos Aires, 6 cs.

NEWS PRINT

M. O'Meara Co., Teresa, Trieste, 41 bls.
Melby, Kutroff & Co., by same, 148 bls.
Chemical National Bank, President Harding, Bremen, 148 rolls.
Chemical National Bank, Pittsburgh, Hamburg, 48 rolls.
W. Hartman & Co., by same, 13 rolls.
W. Hartman & Co., by same, 4 bls.
Joseph Haas, by same, 225 rolls.
Street & Smith Corp., by same, 291 rolls.

PRINTING PAPER

W. Hartman & Co., Pittsburgh, Hamburg, 230 rolls.
W. Hartman & Co., by same, 32 bls.
Tradesman's National Bank, by same, 15 cs.
Cellopap. Paper Co., by same, 71 bls.
Oxford University Press, Ansonia, Liverpool, 5 cs.
B. F. Drakenfeld & Co., by same, 32 cs.
National City Bank, President Harding, Bremen, 282 bls.

PAPER

Globe Shipping Co., President Harding, Bremen, 103 cs.
P. H. Petry & Co., by same, 9 cs.
C. A. Johnson & Co., Ansonia, Liverpool, 25 bls.
Whiting & Paterson, Suffren, Havre, 15 cs
Gimboutfreres, by same, 9 cs.
E. Naumburg, Frederick VIII, Copenhagen, 343 rolls.
American Exchange National Bank, by same, 97 rolls.
Blauvelt & Wiley Paper Mfg. Co., Tarantia, Glasgow, 22 bdls.
M. O'Meara Co., Teresa, Trieste, 292 bls.
Chemical National Bank, Stockholm, Gothenburg, 3,035 rolls.
Chemical National Bank, by same, 256 bls.
C. G. Winans Co., by same, 42 bls.
C. G. Wianns Co., by same, 556 rolls.
M. M. Cohen, by same, 10 rolls.
M. M. Cohen, by same, 100 bls.
The Prager Co., Pittsburgh, Hamburg, 705 rolls.
Wilkinson Bros. & Co., Inc., by same, 287 rolls.
M. O'Meara Co., by same, 93 rolls.
M. O'Meara Co., by same, 37 bls.
C. G. Keyerstein, by same, 347 rolls.
Janeway & Carpender, Inc., by same, 58 rolls.
American Shipping Co., by same, 9 cs.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Endicott, Hamburg, 373 bls. rags.
E. J. Keller Co., Inc., Frederick VIII, Copenhagen, 51 bls. rags.
E. J. Keller Co., Inc., by same, 211 bls. bagging.
Kidder-Peabody Acc. Corp., Suffren, Havre, 48 bls rags.
Guaranty Trust Co., by same, 408 bls. rags.
Guaranty Trust Co., Archimedes, Manchester, 236 bls. rags.
Guaranty Trust Co., by same, 122 bls. bagging.
Guaranty Trust Co., by same, 108 bls. cotton waste.
E. W. Dutton, Inc., by same, 44 bls. rags.
Equitable Trust Co., by same, 92 bls. new cuttings.
Equitable Trust Co., Valflorita, Barcelona, 110 bls. paper stock.
Chase National Bank, Valflorita, Marseilles, 591 bls. rags.
Chemical National Bank, President Harding, Bremen, 216 bls. rags.
Equitable Trust Co., Tarantia, Glasgow, 11 bls. rags.
Chase National Bank, by same, 64 bls. rags.
State Bank, London Commerce, London, 165 bls. paper stock.
Chase National Bank, Jean Laurent, Antwerp, 401 bls. rags.
W. Schall & Co., by same, 153 bls. flax waste.
International Acceptance Bank, by same, 50 bls. rags.
Brown Bros. & Co., by same, 403 bls. rags.
Irving Bank-Columbus Trust Co., by same, 122 bls. rags.
Albion Trading Co., Mercian, Liverpool, 43 bls. rags.
Salmon Bros. & Co., Kazembo, Antwerp, 20 bls. rags.
Chase National Bank, by same, 38 bls. rags.
Ladenburg, Thalman & Co., by same, 38 bls. rags.
W. Schall & Co., by same, 56 bls. thread waste.
Equitable Trust Co., by same, 118 bls. rags.

OLD ROPE

E. J. Keller Co., Inc., Frederick VIII, Copenhagen, 350 coils.
Equitable Trust Co., Tarantia, Glasgow, 61 coils.
International Acceptance Bank, Jean Laurent, Antwerp, 106 coils.

WOOD PULP

E. M. Sergeant Co., Stockholm, Gothenburg, 175 bls. dry soda pulp.
E. M. Sergeant, by same, 254 bls. sulphite pulp.
Johanesson, Wales & Sparre, Inc., by same, 175 bls. dry soda pulp.
R. F. Hammond, Inc., by same, 2,500 bls. sulphite pulp.
Tradesman's National Bank, Virginia, Larvik, 8,225 bls. wood pulp.
Lagerloef Trading Company, Westport, 155 bls wood pulp.

WOOD PULP BOARD

Lagerloef Trading Company, Westport, 1,624 bls. wood pulp board.

WOOD FLOUR

B. L. Soberski, Stockholm, Gothenburg, 1,304 bags wood flour.
A. Kramer Co., by same, 180 bags wood flour.

CASEIN

Kalbfleisch Corp., Pan-America, Buenos Aires, 3,335 bags casein.

BOSTON IMPORTS

WEEK ENDING FEBRUARY 23, 1924

E. Butterworth & Co., Inc., Nevisian, London, 46 bls. rags.
The Crane Co., by same, 192 bls. rags.
Brown Bros. & Co., by same, 251 coils old rope.
Brown Bros. & Co., R. Maru, Genoa, 174 coils old rope.
Lagerloef Trading Company, Natirar, 3,493 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING FEBRUARY 23, 1924

Bulkley, Dunton & Co., Virginia, Copenhagen, 480 bls. wood pulp.
Borregaard Co., by same, 2,200 bls. wood pulp.
Borregaard Co., Virginia, Greaker, 180 bls. wood pulp.
J. Andersen & Co., by same, 1,410 bls. wood pulp.
E. J. Keller Co., Inc., F. Bulow, Gefle, 670 bls. wood pulp.
E. J. Keller Co., Inc., F. Bulow, Hamburg, 153 bls rag pulp.
A. Brown & Sons, Vincent, Havre, 248 bls. rags.
A. Brown & Sons, Vincent, Dunkirk, 1,249 bls. rags.
Lagerloef Trading Company, Hjelmaren, 12,060 bls. wood pulp.
Johaneson, Wales & Sparre, Inc., Grete, Hamburg, 648 bls. sulphite.

PHILADELPHIA IMPORTS

WEEK ENDING FEBRUARY 23, 1924

Bulkley, Dunton & Co., Virginia, Kristiania, 1,250 bls. wood pulp.
Boreegaard Co., Virginia, Greaker, 690 bls. wood pupl.
H. F. Watson, Anaconda, Antwerp, 97 bls. rags.
Kidder-Peabody Acc. Corp., by same, 49 bls. thread waste.
E. J. Keller Co., Inc., Breedyk, Rottendam, 668 bls. rags.
E. J. Keller Co., Inc., Gand, Antwerp, 253 bls. rags.
E. J Keller Co, Inc., Editor, Dunkirk, 266 bls. rags.
E. J. Keller Co., Inc., Editor, Havre, 29 bls. rags.
Lagerloef Trading Company, West Maximus, 450 bls. wood pulp, 2,770 bls. ground wood, 269 bls. wood pulp board.
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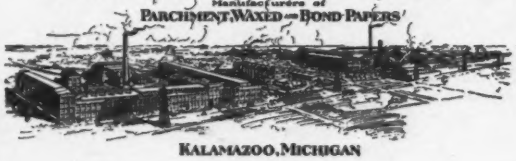

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, FEBRUARY 27, 1924.

The chemical market still keeps up at about the same rate as it has been going for the past week or two. There are no signs of any falling off but on the contrary it seems to be fairly certain that some of the grades are going to pick up even more. When this occurs of course, prices will be liable to take a corresponding rise. Dealers seem to be pulling together for better business instead of fighting each other with disastrous price slashing which tended to keep the market in an unhealthy condition for some time. There have been no real changes in price or in general market conditions during the week.

BLEACHING POWDER.—Bleach has picked up a great deal during the week and there has been a consequent rise in price. Dealers say that the call for this commodity is much greater both in the paper and other industries. The price is now quoted at from 1.65 to 1.75 cents a pound with every indication that it is going to go higher before many more days.

CAUSTIC SODA.—The call for caustic soda continues to be about the same as it has been since the beginning of the new year. There is no sign of any falling off but on the other hand dealers report that it has not increased to quite the extent that they had hoped it would by this time. The price remains firm at 3.10 cents a pound on a flat basis at the works.

CASEIN.—While casein continues to lag behind some of the stronger chemicals, the demand for it is still at about the same level and it has recovered considerably from its precarious condition of a few weeks ago. The price is a trifle lower on the high range being at from 13 to 15 cents a pound.

CHINA CLAY.—China clay is still in fair demand in both the imported and domestic grades. While the amount that is coming in from Europe has not increased there seems to be buying enough to take up all that this country offers. In the domestic grades there is also good business and dealers say that the price is from $12 to $15 a ton for the domestic grades and $16 to $20 a ton for the imported grades.

CHLORINE.—Chlorine has not continued its upward rise of a few weeks ago but it is very firm at its present level with a slow but steady demand taking up most of the production. Paper manufacturers, however, seem to be showing more interest in it and many inquiries are coming in to the dealers and manufacturers. The price is 3.50 to 4.50 cents a pound in tanks.

ROSIN.—In the home grades the call for naval stores has improved and the price has gone up gradually. The paper industry seems to be taking more than it did a week ago and dealers in rosin report that the price is firm at from $5.90 to $6.00 in 280 pound barrels.

SALTCAKE.—A growing and good demand has arisen for saltcake through the glass industry which has been taking up most of the lots on the open market during the past week. The paper industry is not buying much more than it has been for several weeks, but the price still remains at from $20 to $23 a ton at which it is very firm.

SODA ASH.—Soda ash is selling fairly well like the other chemicals to which it is closely related. There has been no change in the price and trading on the open market while a little slower still continues in fairly good volume. The price remains at 1.38 cents a pound on a flat basis.

SULPHATE OF ALUMINA.—Alumina is not quite as brisk as it was at the opening of the year but at the same time the demand is not so slow as to produce any real slump. Paper manufacturers are showing interest even though they may not buy in great quantities. The price is a trifle lower being at 1.30 to 1.40 cents a pound on the commercial grade and 2.10 to 2.25 on iron free.

Market Quotations

(Continued from page 63)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.25	@	2.50
Writing Paper	2.00	@	2.25
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.75	@	2.00
Container Manila	1.25	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.25	@	1.35
Old Newspaper	.90	@	1.00
No. 1 Mixed Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10
Domestic Rags—New. Price to Mill, f. o. b. Phila.			
Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	—
Silesias, No. 1	.07¼	@	.07½
New Unbleached	.10	@	.11
Washables	.04½	@	—
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.03¼	@	.03¾
New Black Soft	.05¾	@	.06½
New Light Seconds	.03½	@	.03¾
Khaki Cuttings	.11	@	.04¼
Corduroy	.03½	@	.04
New Canvas	.08¼	@	.08¾
New Black Mixed Old	.04	@	—
White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	2.15	@	2.35
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	.75	@	.90
No. 4	1.15	@	1.20
No. 5A	1.10	@	—
B			nominal
C			nominal

BOSTON

Paper

Bonds	.09	@	.63
Ledgers	.09	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.07¼	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	—
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$45.00	@	47.50
News, Vat Lined	47.50	@	—
Wood, Vat Lined	55.00	@	60.00
Filled News Board	$50.00		
Solid News Board.			
No. 4 Finish	65.00	@	70.00
S. Manila Chip	62.50	@	70.00
Pat. Coated News	82.50	@	90.00

Old Papers

Mixed paper	.75	@	.77½
Folded news	.95	@	.97½
Soft white shavings	3.00	@	3.15
Hard white shavings	3.75	@	4.00
Kraft paper	2.05	@	2.15
Ledger and letter	2.15	@	2.35
No. 1 books and magazines	1.60	@	1.70
Manila paper No. 1	1.75	@	1.80
Solid ledgers	2.50	@	2.75
No. 1 roofing rags	2.60	@	2.70
No. 2 roofing rags	2.50	@	2.60
No. 3 gunny bagging	1.15	@	1.20
No. 4 Brussels and hard back carpets	1.60	@	1.70
No. 5 roofing rags			
A's	1.90	@	2.00
B's	—	@	—
C's	—	@	—
No. 6 City dump rags	—	@	—
Manila rope, domestic	.06	@	.06½
Mixed strings	1.15	@	1.25
Jute strings	1.30	@	1.40

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rag	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$35.00	@	38.00
Sulphite easy bleaching	55.00	@	63.00
Sulphite news grade	52.00	@	55.00
Sulphite, bleached	76.00	@	80.00
Sulphate	60.00	@	62.00

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.65	@	3.80
Soft White Book shavings	3.20	@	3.30
White Blk. News	2.15	@	2.20
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.60	@	—
Light and Crumpled Book Stock	1.45	@	—
Ledgers and Writings	2.00	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut	—	@	2.00
Printed Manilas	1.55	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue	.90	@	—
Folded News	.90	@	—
No. 1 Mixed Papers	—	@	.75
Domestic Rags—			
Price to mills, f. o. b. Toronto Per lb.			
No. 1 White shirt cuttings	.12¼	@	.13
No. 2 White shirt cuttings	.06½	@	.07
Fancy shirt cuttings	.06¼	@	.06½
No. 1 Old Whites		@	
Third and blues	.03¼	@	.03½
Per cwt.			
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Manila rope	.06¼	@	.06½
No. 2	1.35	@	—
Gunny Bagging	.01½	@	—